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Structural Equation Modeling of Factors Affecting Rural Knowledge-Based Realization
(Case Study: Dekhkoda Village of Hamidieh County)

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Abstract

Purpose: Today, many scholars believe that accelerating the exchange of knowledge and information with emphasis on the central role of knowledge and science is crucial to achieve comprehensive development. In fact, a knowledge-based society is recognized as a paradigm for development. Investing in knowledge-based foundations in the rural areas can also lead the rural community towards the future and play a role in national and international arenas. The purpose of this study is to model structural equations affecting knowledge-based realization in Dehkhoda Village in Hamidieh County.

Design/methodology/approach: The design of this study is of applied-theoretical type and adopts a descriptive-analytical research method. Research data were also extracted from library resources and field surveys. For this purpose, by visiting statistical centers and exploring through statistics, a comprehensive dataset was compiled for the research along with a self-administered questionnaire. The population of this study were the residents of Dehkhoda Village inhabiting permanently in this village in 2018 (n=1980). Of this statistical population, a sample size of n=321 was selected using Cochran formula for rural community. Pearson correlation coefficient, single sample T, multivariate regression and path analysis were used to analyze the data and test hypotheses. These tests were performed using SPSS.22 and Amos software.

Findings: The results suggested that information and communication technology (ICT), education, management, government agencies and NGOs (as independent variables) were positively and directly related to knowledge-based realization (as dependent variable) in Dehkhoda Village. SEM indicators also exhibited that the model developed in this study is backed up by the research data, with all indicators confirming the utility of the SEM. According to the results of research, it can be argued that public satisfaction with management indicators, government and non-governmental organizations is higher than average, whereas satisfaction with ICT and education is lower than average.

Practical implications: Rural knowledge-centeredness requires decentralization, reduction in government tenure, the reinforcement of voluntary and non-voluntary public institutions in villages, the modification of rural management laws and regulations to create and integrate rural management system, the assignment of a large portion of the government's executive duties and responsibilities to rural sheriffdom, and the transfer of facilities and financial resources to it.

Key words: Knowledge-based, Information and communication technology, Rural development, Structural equations, Dehkhoda village, Hamidieh County.
Paper type- Scientific & Research.

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1. Introduction

According to Peter Druker, a renowned scholar and analyst in the political, economic, managerial and knowledge spheres, knowledge refers to information that elicits changes in a person or an entity, whether by paving the way for actions that cause change or by enabling an individual or entity to take a measure that deviates from their past routine. He reiterates that industrial society is the result of a revolution in the industrial age and its impact on society led to the emergence of what was then called *industrial society*. In the information age, it has also given rise to "information society" or "knowledge-based society" (Druker, 1994). In Mason's view, knowledge-based describes a society where all aspects and dimensions of life are influenced by the knowledge and this flow of knowledge or information paves the way for making various decisions in the society. To him, knowledge lays the foundation of a new society, and those who somehow deal with knowledge serve as the creators of the society. Knowledge is the inventory of conceptual tools and categories recruited by the brain to create, collect, and share information.

According to Mason, knowledge embodies the practical aspect of information with respect to the perceived understanding. The ubiquitous and unconscious application of this knowledge represents a society known as "knowledge-based society" (Mason, 1996). A knowledge-based society relying on information and knowledge is an undeniable necessity of today's world. In the 21st century approach, the information-based society moves towards the knowledge-based society. The latter rests upon the fact that science, knowledge, expertise and innovation are the key drivers of community development (Ismaili & Aghayari, 2013). Today, many scholars believe that accelerating the exchange of knowledge and information with emphasis on the central role of knowledge and science is crucial for achieving comprehensive development. Indeed, a knowledge-based society is recognized as the paradigm of development. (Abolala'i, 2006). Knowledge-based society draws on the modern technology to keep pace with the latest developments and innovations in the world to seize environmental opportunities and meet environmental challenges in the most appropriate manner (Mosalanejad & Delbar, 2012). In other words, of all the resources required for production, none is more fluid and flexible than knowledge (Saif & Karami, 2003); however, global developments have made entering the information society and even transition to the knowledge society inevitable.

Today's post-industrial society is a form of information society in which power-based technologies are gradually relying on knowledge-based technologies. Undoubtedly, the sphere of their influence is not confined to urban environments. Technological advancement without regard for disadvantaged areas can produce adverse effects such as rising class gap between cities and villages, increasing migrations from rural to urban areas, the shutdown of indigenous industries, and the loss of local markets. Rural areas are deprived of many facilities and amenities due to distance from cities. Proper planning and development of rural areas based on knowledge can provide rural people access to a variety of health, education and government services and also create job opportunities and raise the awareness of rural people about productive, agricultural and promoting activities while improving the marketing of agricultural and non-agricultural products. Furthermore, it can diminish unnecessary commute to urban areas, curb rural migration and revive rural prosperity.

Roughly speaking, since 40% of the people in the world and 30% of Iranian population settle in rural areas and about 60% of Iran's area comprises rural areas, it is necessary to pay more attention to these areas (Hajinejad, Noori & Fazlali, 2011). Thus, given the role and status of villages in economic, social and political development processes at local, regional, national and international scales and the grave consequences ensuing the underdevelopment of rural areas such as prevalent poverty, rising inequality, rapid population growth, unemployment, migration and poverty, it is essential to upgrade planning and boost productivity and the development of rural areas as a result. Therefore, given that the sustainable development of the world is a function of knowledge, sustainable development in Iran should also be constructed on a knowledge basis

to provide necessary grounds for the knowledge-based realization. At present, these communications are rapidly expanding in Iranian cities, and it is crucial to consider their development in rural areas as well. Eliminating these traditional boundaries between cities and villages can play an effective role in rural development, striking a balance between them and promoting rural-urban integration as a result. Investing in knowledge-based foundations in villages can usher rural community into the future and contribute to the development of national and international arenas. If appropriate knowledge infrastructure is constructed in a society and it is also made accessible to villagers, it will raise villagers' awareness and their connection to the community outside the village (Sidai, 2008). For this purpose, the present study aims to answer the following questions using modeling structural equations (SEM) factors which affect knowledge-based realization in the village:

-Does information and communication technology (ICT) affect the realization of knowledge-based learning in Dehkhoda Village?

-Does education affect knowledge-based realization in Dehkhoda Village?

-Does management affect knowledge-based realization in Dehkhoda Village?

-Do government agencies affect the realization of knowledge-based learning in Dehkhoda Village?

-Do NGOs affect the realization of knowledge-centric in Dehkhoda Village?

-Are the villagers satisfied with the knowledge-based dimensions of rural development?

2. Research Theoretical Literature

2.1. Education

As the most vital resource for humanity, education is the key to everything. Education describes regular teaching and training acquired to prepare individuals for life. Education is one of the social responsibilities of the government, and the improvement of educational system is a serious issue in this regard (Mehdinejad, Saleh Sadeghpour & Nabi Najari., 2019). Being aware of these points, experts in growth and development assert that the expansion of knowledge and technology as the main driver of social and economic progress is impossible without educating the community. Education serves as a solution to social problems afflicting the modern society and can go a long way in solidifying the relationships between different generations (Ibrahimzadeh, 2011).

2.2. Information and Communication Technology (ICT)

Given the interplay between the concept of knowledge-based development and information technology, one of the toughest and most important demands of societies adopting the knowledge-based development model is the possibility of expanding ICT education. The greatest achievement of an educational system in a knowledge-based society is to facilitate public learning and ultimately train the specialized forces in the various fields commensurated with the demands of a knowledge-based society (Seidiy, 2008).

"If we are to understand 60 percent of sustainable growth and development based on knowledge, we need to make plans aligned with the realization of development based on IT knowledge and utilization," said Paul Romer, a professor at Berkeley University. This is so important that it should never be eclipsed by financial and economic shortfalls (Homayounfar & Noori, 2007).

2.3. Management

The administrative idea and knowledge management, especially supervision and leadership, is a subject interwoven with human social life (Farhadi & Zare, 2010). Hence, it is obvious that management is not a new concept and its history can be traced back to the origin of human social history when humans shifted from individual life to social life and gradually from family life to tribal with a later transition from basic agricultural life to modern industrial life and finally to the complex life in the present age. Rural management, one of the integral pillars of rural development, will inhibit the discussion of development plans as a lack of organized management in rural areas. Therefore, it is necessary to pay attention to rural management in accordance with these theories. The absence of organized rural development management from the past to the present and the necessity to address the issue of modern and scientific management is palpably felt. Despite being more disciplined than the past, the current structure of rural management still has a theoretical drawback, and although

benefiting from past experiences, it still works on a trial-and-error basis (Badri, 2011).

2.4. Government and Non-Governmental Organizations

An organization is a social phenomenon consciously coordinated with a relatively defined boundary which aims to realize the objectives on a permanent basis. In the process of rural development, it is important to have appropriate institutions and organizations at national, regional and local levels in fitting with the structure of the rural community, as they can help institutionalize the existing efforts in this process. These organizations can also be governmental, public, or governmental-public in nature. What is important is the effectiveness of these organizations and their ability to draw more people to the rural development process (Afrakhateh, 2009). Given the nature and process of rural development planning, these organizations play a constructive role in this process. In addition to public and NGOs with public activities (health, education, culture, and environment), organizations specialized in rural affairs can play a major role in the development of rural areas. Recent NGOs can team up with government and the private sector, participating in the planning, implementation and monitoring and evaluation of rural programs. Further, by playing a promotional and educational role and acting as the voice of people, especially the disadvantaged groups, they are inherent to the process of rural development planning (Rezvani, 2011).

2.5. Research background

In any research, a comprehensive review of relevant research manifests the depth of the researchers' analysis and the thoroughness of their study. An extensive review of literature not only deepens on the researchers' insights into the subject, but also it lends credit to the research and reflects an accurate perception of various dimensions of research. The findings of a number of studies in Iran and other counties on this subject are reviewed below.

Toffler (1990) in his seminal work, the Third Wave, points to the revolutionary process of human civilization, stating that the information age commenced in the second half of the twentieth century, and today's human societies are in a state of transition. Declaring that knowledge is a source of power, he reiterates that the blend of muscle and money, which were respectively the source of power in agricultural and industrial civilization, are no longer the key components of power.

In one study, Druker (1994), the well-known political and economic analyst, explores the concept of knowledge, concluding that the industrial revolution in the industrial age led to the emergence of a kind of society called *industrial society*. In the era of information, it prompts the advent of the information society and the knowledge-based society.

Mason (1996) elaborates on knowledge-based society in his research entitled "Information Management and Dissemination", concluding that knowledge-based society is a society in which knowledge affects all aspects and dimensions of people's life. He argues that knowledge is the foundation of a new society and that anyone who somehow deals with knowledge is among the creators of that society.

In another study, Hwang (2003) explores the requirement of the information age, proposing that although IT plays a vital role in the creation of knowledge management, it will not yield desired outcomes if individuals lack the essential skills and abilities for its creative application in the activities such as product innovation.

Bruckmeier & Tovey (2008) explore the role of knowledge management in rural sustainable development, arguing that knowledge is critical for any type of sustainability. Sustainability consists of three components: social, economic, environmental development. To guide the rural development towards sustainability, it is vital to rely on knowledge and relationships between social, environmental, and economic systems. Knowledge-based system can rekindle the process of rural development. In this regard, the process of rural development and its sustainability is based on knowledge.

In another study, Wong (2010) delves into the role of knowledge in agricultural development, positing that sustainable development provides a solid foundation for sustainable development and that knowledge management is vital for innovation, prioritization and efficient use of resources.

Moreover, Lwoga, Ngulube & Stilwell (2010) discusses the application of knowledge in agricultural development, stating that knowledge management practices for the indigenous knowledge management and its integration with

other knowledge systems is crucial for agricultural development in developing countries. They maintain that knowledge management is a process (knowledge management to meet existing and emerging needs for identifying and exploiting existing assets and creating new opportunities) and that this definition should be aligned with the definition of sustainable development.

Liaqut & Avdic (2015) also explore the impact of knowledge on rural sustainable development, concluding that about 50% of the world's people live in poor rural areas under difficult living conditions; therefore, finding a strategy to alleviate the hardships of rural residents is one of top priorities. They believe that knowledge management can support sustainable rural development, stating that local populations, government agencies, and non-governmental institutions can play a pivotal role in this process.

In another paper, Yamin Firouz (2003) investigates knowledge and management, declaring that knowledge is one of major fortes of an organization to survive in the competitive world market. Thus, it should be seen as a valuable asset by organizations and exploited to promote the awareness and collective skills necessary to build a larger organizational knowledge base.

In addition, Naderi (2005) studies knowledge management in an article. He expands on various development patterns in light of the World Bank data and knowledge economy benchmarks, comparing the status of knowledge-based systems in Iran with some countries. Naderi looks into the challenges of knowledge management, positing that knowledge management is a means of creating, maintaining and distributing the potentials of a large body of knowledge exploited by all successful organizations in the 21st century.

Emadzadeh and Shahnazi (2007) look at the challenges and indicators of Iran knowledge-based economy, declaring that Iran faces two types of challenges in the field of knowledge economy; the first is concerned with the low absolute size of some knowledge-based economic indicators and the second deals with the imbalance of these indicators.

Momeni & Shamsi (2007) investigate the institutional conditions affecting knowledge accumulation and application and then explore the fourth development plan. The process of accumulation and application of knowledge, heavily dependent on institutional conditions, is a time-intensive and path-dependent process. High transaction costs hampers the specialization formation in the community. Likewise, communication, risk and high uncertainty will prompt innovation. Culture and government are both two key factors in a knowledge-based community. The results of their study also suggest that although the program enumerates a number of institutions vital for knowledge accumulation, its approach has not been institutionalized and some of the most important institutional suggestions have not been adequately addressed.

On the other hand, Mahmoudi Meimand, Rabi'i, Parhizkar & Miramini (2013) believe that science and technology indicators are the main means for measuring the status of science and technology in the country. Our country's science and technology system is in need of indicators to measure knowledge-based status, especially in light of its crucial role in the vision document.

Fazelnia & Mollashahi (2016) elaborate on the approaches affecting knowledge-based management in rural areas, positing that in a society where knowledge-based infrastructures are appropriate and available to the society, the level of rural awareness is raised and the connection with the community outside the village is reinforced. The knowledge centrality begins with visionary and future-oriented outlooks aimed at fostering an integrated and multidimensional development of human and human society.

In summary, it can be acknowledged that knowledge-based realization is one of the key requirements and the bedrock of mobility in the path of development. Based on a review of literature in this field, it is essential to explore the role of knowledge-based realization from different aspects of development along with factors influencing knowledge-based realization. The present study seeks to investigate and measure all the components that directly and indirectly affect the knowledge-based realization in the village under study coupled with the modeling of these factors, which are the primary strengths and innovations of the present study.

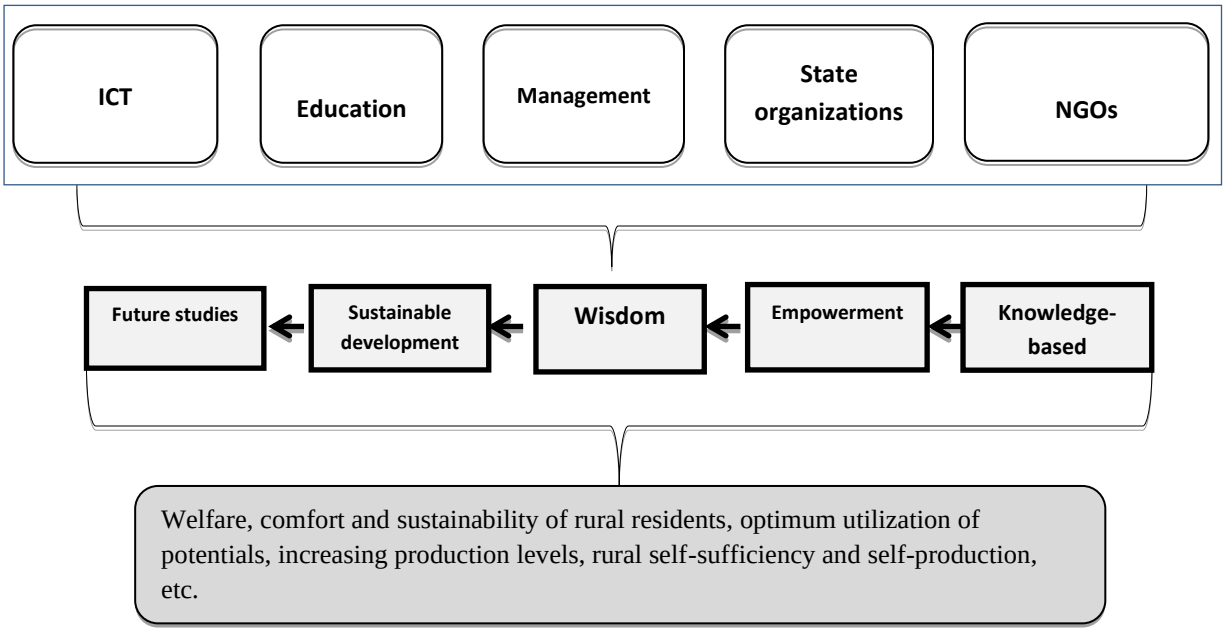

Figure 1. Conceptual model of research
(Source: Research findings, 2019)

3. Research Methodology

3.1 Geographical Scope of the Research

Hamidieh is one of the cities of Khuzestan Province located 25 km to the west of Ahvaz on Ahvaz to Susangerd Road. Hamidieh is at 18 m above the mean sea level (Buozra, 2009: 54) at 48° 11' longitude and 31° 29 latitudes. The village of Dehkhoda, 2 km from Hamidieh, is located in the central district of Dehkhoda County.

3.2. Methodology

In this study, a developmental-applied approach along with descriptive, analytical and survey methods is adopted. The research data were extracted through library analysis and field surveys (questionnaire, interview with people and authorities). For this purpose, the researchers visited statistical centers and studied annual statistics reports to compile comprehensive information for the research, which were later supplemented with questionnaires, interviews and field studies. Questionnaire items addressed research objectives and key factors in the knowledge-based realization in the village under study to collect the desired information from the statistical sample of the study. Regarding the research objectives, the statistical population of the present study consisted of rural inhabitants aged 18 to 65 years who were permanent residents of the village (n=1980). The sample size of rural population was determined using Cochran formula (n=320). To analyze the data and test the research hypotheses, Pearson correlation coefficient, single sample T, multivariate regression and path analysis were used. These tests were performed using SPSS.22, Amos and Excel software.

4. Research Findings

4.1. Reliability and Validity of the Questionnaire

The items were evaluated on a Likert-scale as the researcher aimed to measure a complex concept through multiple items. Hence, we used Cronbach's alpha statistic to measure the internal consistency of items. An alpha coefficient close to 1 indicates higher coherence of the items. After measuring the reliability of the concepts in question, the following values were obtained for Cronbach's alpha:

Table1. Cronbach's alpha values for reliability assessment.
(Source: Research findings, 2019)

Variable	Items	Cronbach's alpha
ICT	11	.091
Education	9	0.89
Management	15	0.83
Government institutions	12	0.82
NGOs	18	0.87
Rural knowledge base	8	0.93

As the data in the table 1 show, for all the variables under study, the Cronbach's alpha value was greater than 0.7, indicating that the questionnaire items had good internal consistency. In order to assess the validity of the questionnaire items in the present study, the questionnaire was presented to a number of university professors, including the supervisor and advisors of the author, and their comments and feedbacks on the questionnaire were applied to improve the quality of items. A number of questions were omitted, some were modified and a few were also added upon the request of professors.

4.2. Descriptive findings

Data analysis was performed using statistical tests in two parts: 1) descriptive analysis (the demographic characteristics of the sample); 2) inferential analysis (the significance of the relationship between independent and dependent variables).

Table 2. Descriptive characteristics of respondents.
(Source: Research findings, 2019)

Gender		Marita status		Age					Education		
Female	Male	Single	Married	15-20	21-30	31-40	41-50	51 and more	Below diploma	Diploma	University degree
46.3	53.7	35.7	64.3	12.5	35.4	21.5	16.2	14.4	48.1	25.3	26.6

With regard to the demographic information of respondents, the results exhibited that 53.7% of participants were male and 46.3% were female. As for marital status, 64.3% of the respondents were married and 35.7% were single. With regard to the age, 12.5% of respondents were between the age of 15 to 20 years, 35.4% in the age group of 21 to 30 years, 21.5% in the age group of 31 to 40 years, 16.2% between 41 and 50 years, and 14.4% above 50 years of age. As for the level of education, 48.1% of the respondents did not have a high school diploma, 25.3% had a diploma, and 26.6% had a university degree.

4.3. Inferential Research Findings

To answer the questions 1 through 5 and evaluate the association between the independent and dependent research variables, the Pearson correlation statistical techniques and multivariate regression analysis were used (see Tables 3 and 4). Also, the single sample T-test was utilized to answer the sixth item (see Table 4). The results are reported below:

4.3.1. Pearson correlation

Pearson correlation test was used to investigate the relationship between the independent variables and the dependent variable, the results of which are listed in Table (3) below:

Table 3. Tests of significance of the relationship between the independent variables and dependent variable
(Source: Research findings, 2019)

Variable	Correlation coefficient	Significance level
ICT	0.452	0.000
Education	0.552	0.000
Management	0.854	0.000
Government institutions	0.661	0.000
NGOs	0.406	0.000

According to the results, ICT, education, management, government agencies and NGOs are significantly and positively related to knowledge-based realization.

4.3.2. Multivariate regression analysis

In this section, rural knowledge-based indices are conflated to illustrate the impact of independent variables in explaining rural knowledge-based realization

As can be seen, Table 4 presents the results of the concurrent multivariate regression analysis to explain the dependent variable of knowledge-based realization. The results confirm the inclusion of the independent variables of ICT, education, management, government agencies and NOGs into the equation. Based on the calculated data and R^2 values, it can be argued that 79% of the dependent variable changes are directly explained by the variables above. As it seems, the regression model was able to explain 79% of variations in the rural knowledge-based realization. Thus, it can be posited that 21% of the dependent variable changes are explained by variables other than those considered in this study. According to the beta coefficient (Beta=.099), ICT has a positive and direct association with rural knowledge-based realization. The education variable with a beta coefficient of 0.118 also indicates a positive and direct association between this variable and rural-based knowledge. Management variable with a beta coefficient of 0.249 also reflects a positive and direct relationship between this variable and rural knowledge-centeredness. On the other hand, government agencies with a beta value of 0.842 manifest a positive and direct relationship with the rural knowledge-based realization. Finally, NGO variable with a Beta value of 0.97 indicates a positive and direct relationship with the rural knowledge-based realization.

Table 4. Variables entered in the regression equation accounting for the variance of rural knowledge-based realization
(Source: Research findings, 2019)

Variable	R	R	F value	Beta	T	Sig
ICT	0.89	0.79	219.41	0.99	2.335	0.001
Education				0.118	2.768	0.02
Management				0.2449	5.379	0.006
Government agencies				0.842	21.130	0.000
NGOs				0.097	2.480	0.001

Item 6: Are villagers satisfied with rural knowledge dimensions?

To answer this question, one-sample T-test was used, the results of which are presented in the table 5:

Table 5. Evaluation of rural satisfaction with rural knowledge dimensions
(Source: Research findings, 2019)

Variable	Value = 3					
	Mean	Mean difference	SD	T value	Significance level	Hypothesized mean
ICT	2.02	0.0513	0.884	0.519	0.09	3
Education	2.05	0.0498	0.857	1.07	0.14	3
Management	3.15	0.0496	0.854	3.10	0.002	3
Governmental agencies	3.15	0.0496	0.854	3.10	0.002	3
NGOs	3.10	0.0597	1.02	-10.79	0.000	3

The results of the table 5 illustrate the mean respondents' attitudes of the villagers' level of content with the knowledge-based realization for management (3.15), government agencies (3.15) and the NOGs (3.10). Also, given that the estimated significance is less than 0.05 (P <0.05), it can be asserted that the villagers' satisfaction with the indicators of management, government agencies and NGOs are above average at 95% confidence interval. Given the estimated level of significance, since two indices of ICT are above average, it can be contended that satisfaction is below the average.

4.3.3. Modeling factors affecting knowledge-based realization

Structural equation modeling (SEM) is a quantitative method that allows researcher to test the theoretical model with diverse components. In other words, SEM enables the researcher to formulate and evaluate the associations between different types of variables within the theoretical framework, empirical background and personal perspectives. How variables affect each other and how strong and in what direction is such an impact, are some of the issues addressed in SEM. The SEM and the main parameters of this model (i.e. the direct and indirect effects of independent variables on rural knowledge-based realization) are reported in the following figure and table6&7:

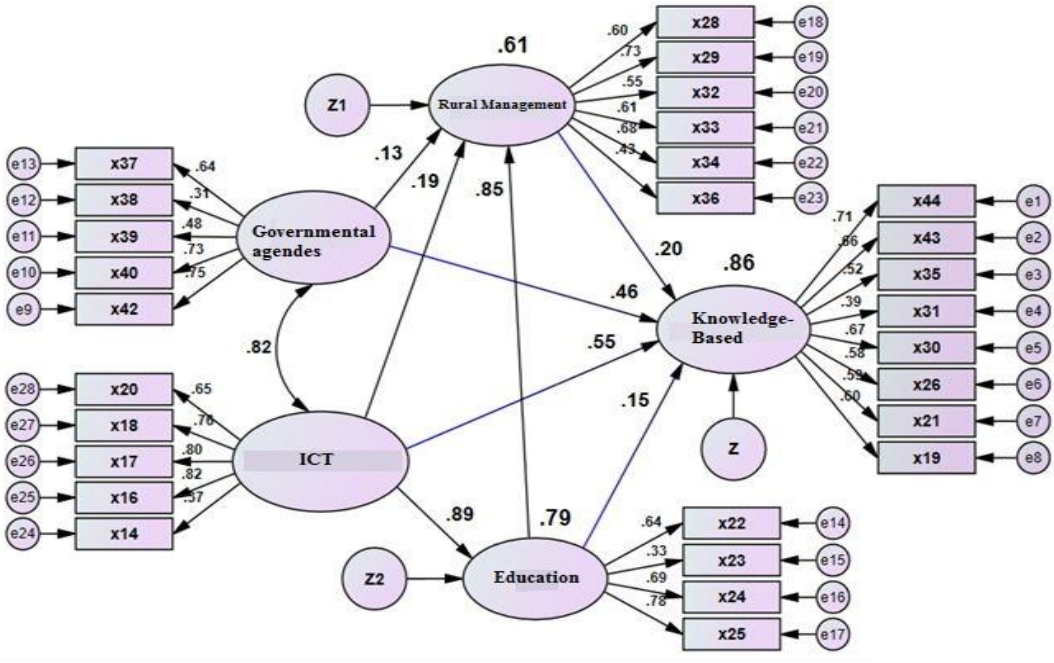

Figure 2. SEM of the direct and indirect effects of independent variables on rural knowledge-based realization
(Source: Research findings, 2019)

Table 6. Estimation of assessment values in the equation model
(Source: Research findings, 2019)

Index	Absolute fit		Comparative fit			Parsimony fit			Holter
	CMIN	GFI	TLI	CFI	PCFI	DF	CMIN/DF	RMSEA	
Value	1005.95	0.90	0.3	0.96	0.60	341	2.95	0.08	124

The assessment indicators of SEM, given the desired range of these indices, suggest that the proposed model is supported by the research data. That is, the data fit the model and all the indices reflect desirability of SEM.

Table 7. Estimation of the direct and indirect effects of the independent variables on the rural knowledge-based realization variable
(Source: Research findings, 2019)

Independent variable	Mediator variable	Dependent variable	Coefficient of determination	Estimate						Mediation
				Total		Direct		Indirect		
				Value	*P*	Value	*P*	Value	*P*	
Government agencies	-	Rural management	0.61	0.13	0.048	0.13	0.048	-	-	-
ICT				0.19	0.032	0.19	0.032	-	-	-
Education				0.85	0.001	0.85	0.001	-	-	-
ICT	-	Education	0.79	0.89	0.001	0.89	0.001	-	-	-
Government agencies	Rural management	Rural knowledge-based realization	0.86	0.49	0.001	0.46	0.001	0.03	0.236	Rejected
ICT				0.57	0.001	0.55	0.001	0.04	0.132	Rejected
Education				0.31	0.023	0.15	0.044	0.16	0.041	Confirmed
Rural management				0.20	0.031	0.20	0.031	-	-	-
ICT	Education			0.68	0.001	0.55	0.001	0.13	0.050	Confirmed
Education	-			0.15	0.044	0.15	0.044	-	-	-

According to the values listed in the above table above, independent variables (government agencies, ICT and education) account for 61% of variance in the rural management variable. Given the effect size of this index, the coefficient of determination for this index is high. In other words, these variables can explain variations in rural management variables to a large extent. The effect of variables of government agencies, ICT and education on rural management variable was also statistically significant ($p < 0.05$). Informed by the impact factor of these variables, it can be concluded that the effect of government agencies and ICT on rural management variable is average and below-average, while education variable has a direct and high effect. Moreover, ICT variable

accounts for 79% of variance in education variable. Based on the values of effect size, the coefficient of determination is estimated to be high. In other words, ICT variable can largely explain variance in education variable. The effect of ICT variable on education is statistically significant ($p \leq 0.05$). It can be argued that this variable has a direct and high effect on education variable. On the other hand, the independent variables of the study account for 86% of variance in the rural knowledge-based realization. Given the effect size, the coefficient of determination is estimated to be high. That is, these variables can explain variance in rural knowledge-based realization to a large extent. The direct effect of variables of government agencies, ICT, rural management and education on the rural knowledge-based realization variable is statistically significant ($p \leq 0.05$). Based on the values of effect coefficients, it can be posited that government agencies and ICT variables have a direct and average effect on rural knowledge-based realization and rural management and education have a direct and average effect on this variable. The indirect effect of government agencies and ICT variables on the rural knowledge-based realization is not statistically significant ($p > 0.05$). Therefore, rural management variable does not mediate the relationship between these variables with the rural knowledge-based realization; however, the indirect effect of education variable on rural knowledge-based realization is statistically significant ($p \leq 0.05$). Hence, the rural management variable plays a mediating role in the relationship between education and rural knowledge-based realization. Given the indirect effect of this variable, it can be claimed that this variable has a direct and weak mediating role.

Finally, the indirect effect of ICT through education variable on rural knowledge-based realization was statistically significant ($p \leq 0.05$). Hence, the education variable plays a mediating role in the above variable. Given the value of indirect coefficient of effect, it can be argued that this variable has a direct and weak mediation.

5. Discussion and conclusion

The proliferation of mass media can bridge the gap between the village and the city and contribute to the empowerment of rural residents. This process has been expedited by advancement in ICT and increased mobility. Access to information and knowledge is central to the development of poverty alleviation programs in rural areas. On the other hand, the main driver of all economic, socio-cultural, environmental and other developments is the human mind, and education is what awakens human mind and ignites creativity. Education is an index that yields results in the long-term. Education can be either direct or indirect. Direct education in the villages is provided by schools, Construction Jihadi and Cooperative Organization and other relevant officials. Indirect education in villages may be provided in three forms: 1) official government agencies; 2) unofficial agencies and NGOs; and 3) traditional education taught by fathers, masters, and others.

The means and instruments required to achieve these goals in rural community are supplied by the relevant organizations and institutions. In fact, the rural management is in charge of organizing and guiding the community and the rural environment by setting up these organizations and institutions. Islamic councils and Dehyariha in villages are the main pillars of rural management that jointly strive to advance rural development goals. Incomplete knowledge and unfamiliarity of these two important pillars of rural management with developmental platforms and capacities lead to the wastage of time and resources, and it is vital to strengthen the existing mechanisms at work for these two important rural management institutions.

While in the past only the Ministry of Agriculture and Rural Development were responsible for the rural sector, in the post-Islamic Revolution era diverse institutions and bodies such as the Housing Foundation, Construction Jihad, Ministry of Interior and Welfare Organization, Cooperative Organization, Mostazafan Foundation, Imam Khomeini Relief Committee, Shahid Foundation, etc. are involved in rural affairs. In addition to the lack of any coordination between the missions and activities of these bodies, they employ various operation strategies and have diverse social and political positions at villages. More importantly, they still continue to confine their role to intervention, assistance and agency instead of assuming a moderating, educating and promoting role. It has escalated the dependence of people on the government and reduced self-reliance and participation.

Rural knowledge-based realization calls for decentralization, diminished tenure of government, strengthening of voluntary and non-voluntary public institutions in villages, correction and modification of rural management laws and regulations to create an integrated rural management system, and delegate the bulk of the government's executive tasks in agriculture and rural affairs to Dehyariha along with the transfer of facilities and financial resources. Successful decentralization more than anything is a function of the real power and competence of the government to support public NGOs and help to build capacity. However, one of the major obstacles to knowledge-based realization and sustainable rural development is the inadequate organizational structure of rural development. By adopting a decentralized approach and strengthening nongovernmental institutions for mobilization along with nourishing organizational integration in the field of policymaking, we can lay the ground for rural knowledge-based realization.

At the end, the following suggestions are offered:

- Developing ICT offices and broadband the Internet networks in the villages and expanding new ICT services to facilitate people's everyday needs;
- Optimal use of new technologies in rural development as a driving force for regional and national economic development;
- Promoting virtual education in rural areas by using ICT to develop agriculture, handicrafts and other related industries;
- Expanding e-government services and promoting a culture that encourages the use of these services by rural people;
- Using the huge potentials of the public (NGOs), private and cooperative sectors for rural management and assigning unused rural areas to these sectors for the purpose of pursuing and achieving the desired goals;
- Preparing the ground for increased rural participation in the management of rural affairs by paving the way for the engagement of rural people in rural-related activities;
- Improving the skills and knowledge of rural people through empowerment training courses;
- Establishing branches of rural affairs in the central villages with the aim of bringing state clerks and decision-makers closer to the rural people and parallel works of government and non-government agencies in the villages;
- Offering managerial and economic training to rural residents to better manage village affairs and also holding training courses to acquaint the villagers with management concepts;
- Cutting administrative red tape for rural development and organization;
- Setting up and launching a rural information services center;
- Organizing scientific conferences on different aspects and potentials of the villages;
- Allocating unused rural areas to public institutions for the purpose of pursuing and achieving the objectives of these institutions.

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مدل‌سازی معادلات ساختاری عوامل مؤثر بر تحقق دانایی محوری روستایی (مطالعه موردی؛ روستای دهکده- شهرستان حمیدیه)

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چکیده مبسوط

۱. مقدمه

جامعه دانایی محور مبتنی بر اطلاعات و دانش، ضرورت انکارناپذیر جهان امروز است. در رویکرد قرن بیست و یکم، جامعه مبتنی بر اطلاعات به سمت جامعه مبتنی بر دانایی حرکت می‌کند. جامعه دانایی محور بر این مبنا استوار است که علم، دانش، تخصص و نوآوری و خلاقیت محرک اصلی توسعه جوامع می‌باشد. امروزه بسیاری در سراسر جهان با محور قرار دادن دانش و معرفت در عرصه‌های مختلف بر این باورند که سرعت بخشیدن به مبادله دانش و اطلاعات نقش بسیار مهمی در دستیابی به توسعه همه‌جانبه دارد که درواقع جامعه مبتنی بر دانش و دانایی به‌عنوان الگوی توسعه شناخته می‌شود. سرمایه‌گذاری در بنیان‌های دانایی محوری در روستاها نیز می‌تواند جامعه روستایی را به سمت آینده مطلوب و نقش‌آفرینی در عرصه‌های ملی و بین‌المللی یاری رساند. به همین منظور پژوهش حاضر باهدف مدل‌سازی معادلات ساختاری عوامل مؤثر بر تحقق دانایی محوری در روستای دهکده از توابع شهرستان حمیدیه صورت گرفته است.

۲. مبانی نظری تحقیق

ازنظر پیتر درایکر محقق و تحلیلگر مشهور در عرصه سیاسی، اقتصادی، مدیریتی، دانایی عبارت است از اطلاعاتی که سبب تغییر یک‌چیز یا شخص می‌گردد؛ چه با فراهم ساختن زمینه اقدام برای تغییر و چه با قادر ساختن یک فرد یا نهاد برای انجام یک عمل متفاوت نسبت به آنچه درگذشته انجام می‌داده است. وی این واقعیت را یادآوری می‌کند که جامعه صنعتی حاصل انقلابی است که در عصر صنعت روی داد و تأثیر آن بر جامعه منحصر به پدید آمدن نوعی از جامعه گردید که اصطلاحاً جامعه صنعتی لقب گرفت. همچنین عصر اطلاعات سبب پدید آمدن جامعه اطلاعاتی یا به‌عبارتی‌دیگر جامعه دانایی محور گردید. ازنظر میسون دانایی محوری عبارت است از جامعه‌ای که دانایی در کلیه شئونات و جنبه‌های آن جریان دارد و این جریان دانایی یا اطلاعات است که بسترسازی تصمیم‌گیری‌های مختلف در عرصه جامعه را بر عهده دارد. به عقیده وی دانایی زیربنای جامعه نوین است و هرکس که به نحوی با دانایی سروکار دارد جز سازندگان جامعه محسوب می‌شود. دانایی عبارت است از موجودی ابزارها و مقوله‌های مفهومی که به‌وسیله مغز برای خلق، جمع‌آوری و تقسیم اطلاعات بکار می‌روند. از دیدگاه میسون دانایی شکل کاربردی اطلاعات با توجه به فهم استخراج‌شده از آن‌هاست. کاربرد همه‌جانبه و ناخودآگاه این دانایی جامعه‌ای را دربرمی گیرد که به‌اصطلاح از آن به‌عنوان «جامعه دانایی محور» یاد می‌شود.

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۳. روش تحقیق

رویکرد حاکم بر این پژوهش، توسعه‌ای- کاربردی و روش تحقیق به شیوه توصیفی، تحلیلی و پیمایشی است. داده‌های آماری پژوهش نیز از روش‌های کتابخانه‌ای و میدانی (پرسش‌نامه، مصاحبه با اشخاص و مسئولین مربوطه) استخراج گردیده است. بدین منظور با مراجعه مستقیم به مراکز آماری و آمارنامه‌ها، اطلاعات جامعی برای تحقیق تهیه‌شده و سپس از طریق پرسش‌نامه، مصاحبه و مطالعات میدانی، پژوهش مزبور تکمیل‌شده است. سؤالات پرسش‌نامه با توجه به اهداف تحقیق و عوامل کلیدی در تحقق دانایی محوری در روستای دهکده تنظیم‌شده به‌طوری‌که بتوان اطلاعات موردنظر را از نمونه آماری موردمطالعه گردآوری نمود. در ارتباط با اهداف موردنظر، جامعه آماری پژوهش حاضر شامل ساکنان روستای دهکده که در سال ۱۳۹۵ بین ۱۸ تا ۶۵ سال سن داشتند و به‌صورت دائم در روستا ساکن بودند؛ که تعداد آن‌ها ۱۹۸۰ نفر بود. با توجه به جامعه آماری در این پژوهش، حجم نمونه که با استفاده از فرمول کوکران محاسبه‌شده برای جامعه روستایی دهکده ۳۲۰ نمونه مشخص‌شده است جهت تجزیه‌وتحلیل داده‌ها و آزمون فرضیات پژوهش از فنون آماری ضریب همبستگی پیرسون، T تک نمونه‌ای، رگرسیون چند متغیره و تحلیل مسیر استفاده‌شده است. این آزمون‌ها با استفاده از نرم‌افزارهای SPSS.22، Amos و Excel انجام شد.

۴. یافته‌های تحقیق

بررسی معناداری رابطه بین متغیرهای مستقل تحقیق با متغیر وابسته با استفاده از آزمون همبستگی پیرسون نشان داد که بین شاخص‌های فناوری اطلاعات و ارتباطات، آموزش، مدیریت، نهادهای دولتی و غیردولتی با دانایی محوری روستایی رابطه معنی‌دار و مثبت وجود دارد. نتایج تحلیل رگرسیون چند متغیره به شیوه‌ی هم‌زمان برای تبیین متغیر وابسته دانایی محوری روستایی نشان داد که همه متغیرهای مستقل با متغیر دانایی محوری روستایی در محدوده موردمطالعه دارای روابطِ مثبت و مستقیم است. بر اساس نتایج مدل و با تکیه‌بر مقادیر R^2 به‌دست‌آمده می‌توان گفت که ۷۹ درصد از تغییرات متغیر وابسته توسط متغیرهای مستقل به‌طور مستقیم تبیین می‌شود؛ پس می‌توان گفت ۲۱ درصد از تغییرات متغیر وابسته توسط متغیرهای دیگری تبیین می‌شود که در این پژوهش موردنظر نبوده‌اند. بر اساس نتایج مدل معادلات ساختاری، متغیرهای مستقل پژوهش درمجموع ۸۶ درصد از واریانس متغیر دانایی‌محوری روستایی در محدوده موردمطالعه را تبیین می‌کنند؛ با توجه به مقادیر مربوط به حجم اثر شاخص ضریب تعیین این مقدار بزرگ برآورد می‌شود، به‌عبارت‌دیگر این متغیرها در حد بالایی توان تبیین واریانس متغیر دانایی‌محوری روستایی را دارند؛ بنابراین اثر مستقیم متغیرهای نهادهای دولتی، فناوری اطلاعات و ارتباطات، مدیریت روستایی و آموزش بر متغیر دانایی‌محوری روستایی به لحاظ آماری معنادار است.

۵. بحث و نتیجه‌گیری

بر اساس نتایج، شاخص‌های ارزیابی کلیت مدل معادله ساختاری با توجه به دامنه مطلوب این شاخص‌ها درمجموع بیانگر این است که مدل مفروض تدوین‌شده توسط داده‌های پژوهش حمایت می‌شوند، به‌عبارت‌دیگر برازش داده‌ها به مدل برقرار است و همگی شاخص‌ها دلالت بر مطلوبیت مدل معادله ساختاری دارند؛ بنابراین دانایی محوری روستایی مستلزم تمرکززدایی، کاهش تصدی‌گری دولت، تقویت نهادهای عمومی غیردولتی و داوطلبانه در روستاها، اصلاح قوانین و مقررات مربوط به مدیریت روستایی در جهت ایجاد و سیستم یکپارچه مدیریت روستایی، واگذاری بخش عمده‌ای از وظایف اجرایی دولت در بخش کشاورزی و روستایی به دهیاری‌ها همراه با واگذاری امکانات و منابع مالی می‌باشد. تمرکززدایی موفقیت‌آمیز، به قدرت واقعی و شایستگی دولت در حمایت از نهادهای عمومی غیردولتی و کمک به ایجاد توانمندی‌های بیشتر بستگی دارد. به‌هرحال یکی از موانع مهم تحقق دانایی محوری و توسعه پایدار روستایی، ساختار نامناسب سازمانی توسعه روستایی بوده است که با اتخاذ رویکرد تمرکززدایی و تقویت نهادهای غیردولتی و به تحرک واداشتن آن‌ها و همچنین ایجاد یکپارچگی سازمانی در سیاست‌گذاری امور روستایی می‌تواند زمینه تحقق دانایی محوری روستایی را فراهم نماید.

کلمات کلیدی: دانایی محوری، فناوری اطلاعات و ارتباطات، توسعه روستایی، معادلات ساختاری، روستای دهکده، شهرستان حمیدیه.

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The Impact of Micro Credit on Empowerment of Female Heads of Rural Households Covered by Imam Khomeini Relief Committee (Case Study: Central District of Zanjan County)

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Abstract

Purpose- The purpose of the present study is to investigate the effect of micro credits received from Imam Khomeini Relief Committee on the empowerment of the female heads of rural household in the central part of Zanjan City.

Design/methodology/approach- This is a descriptive-analytical study based on observation, interview and questionnaire. The statistical population of the present study consisted of female heads of rural households covered by Imam Khomeini Relief Committee in 38 villages of central Zanjan County. To achieve the objectives of the study, all female headed households in 38 villages of central Zanjan (n = 110) were selected using whole population count method. The data collection was conducted using library analysis and field surveys, and the main research instruments were interview and questionnaire. The questionnaire mainly consists of closed-ended questions and answers are rated on a 5-point Likert scale.

Finding- Micro-credit had the greatest impact on social empowerment of female-headed households and there was a positive relationship between the allocated credit and economic empowerment of female-headed households although the coefficient indicated a weak correlation between the two variables. In addition, these micro-credits contribute to the economic empowerment of female heads of rural households by improving the employment opportunities and income.

Practical implications- In light of the financial weakness of rural women, it is suggested that educational classes be organized to improve rural women's empowerment and their access to credit and financial resources through the establishment of cooperatives.

Originality/value- The present study explored the capabilities of rural women in different dimensions influenced by micro-credits. The results of this study can help rural development planners and policymakers enhance women empowerment in rural communities.

Key words- Rural development, Women's empowerment, Micro-credit, Zanjan County.
Paper type- Scientific & Research.

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1. Introduction

There has always be an urgent need for gender equality and the alleviation of barriers to the participation of women in social and economic realm in societies seeking to achieve sustainable development. Ignoring women as a half of labor forces in the society embodies failure to fully exploit the potentials of a society to improve conditions and facilitate development in that society, as true development is attained through people's actions, not action taken for the people (United Nations, 2017). In the meantime, weak economic and social infrastructure of developing countries have undermined the strength of these societies in accessing resources, facilities, and services (Saeedi, 2012). According to international reports, rural women in developing countries have an undesirable status in terms of different indicators of poverty, literacy, employment, with limited resources and job opportunities (Sahu & Singh, 2012). Hence, strategies for creating multiple opportunities for these women (as half of human resources and population) through their participation in different areas can contribute to their empowerment and ultimately the growth of communities (Islam et al, 2019; Meena & Singh, 2012). Increased economic participation of women reflects lower impassiveness of people to the fate of the country and society's momentum for sustainable development. Thus, economic participation wields influence on women's attitudes and the efficiency of political systems and the development of these societies. Women's participation is particularly important in terms of their contribution to the productivity of society as well as their satisfaction with life (Gillespie et al., 2019). The presence of women in different economic and social spheres as half of the labor force in human societies is a prerequisite for development (Jain, 2018).

In this context, one of the major tasks entrusted to support organizations is women's empowerment (Tezozomoc & Jakson, 2010). An effective strategy to foster personality growth and mental and intellectual empowerment of the villagers, especially women, is the provision of financial facilities. In the past few decades, granting micro-credits has been recognized as an effective solution to increase the empowerment of villagers, which has been utilized by different countries to varying degrees of success (Mafi, 2008). According to the World Bank, the purpose of granting credits to villagers is to alleviate poverty, boost environmental sustainability and improve rural welfare, which will ultimately lead to the empowerment of villagers (UN. ESCAP, 1996).

In fact, micro-credit provision represents the first step to relieve poverty, as these credits offer a diversity of employment opportunities for rural communities (Sanyang & Huang, 2008).

Rural women, representing half of the population in their respective societies, are at the heart of economic and social development for any nation (Pereka, 1998), constituting one of the chief recipients of such microcredits. Rural women are a key element of production in the economic system of society. As internal managers in their families, they are producers and converters of agricultural products in the economic system (Papzan, Khalid & Soleimani, 2011). The purpose of granting micro-credit to disadvantaged rural women is to generate income, improve living standards, and save money (Yunus & Jolis, 2007).

The Imam Khomeini Relief Committee is one of the public organizations which aims to supply facilities and services to disadvantaged individuals and families. A group that is among the major recipient of Imam Relief Committee services is female heads of households in rural areas, who are in charge of their family in the absence or inadequate presence of an adult male, which makes life management into a bit of challenge for them. According to the available economic indicators, female heads of rural households have despairing economic conditions. Rural societies are plagued with a plethora of problems, including "the lack of employment and proper business, low income, unemployment, poverty and lack of amenities, health, services, insurance and savings, among other things" (Rostamkhani, 2013).

In light of the prevailing conditions of the female heads of rural households, Imam Khomeini Relief Committee of Zanjan Province has so far offered extensive financial facilities in rural areas to empower these communities. The number of female heads of households covered by the Relief Committee in Zanjan Province is 11385, of whom 5289 female heads of households are in Zanjan. The purpose of this study is to investigate the role of microcredits in the economic empowerment of

female heads of rural households to answer the following questions:

- To what extent have these credits contributed to the empowerment of female heads of rural households?
- Given the importance of empowerment, can micro-credit be effective in generating employment and income for femlae heads of household in rural areas?

2. Research Theoretical Literature

2.1. Theoretical Foundations

Micro-credit is one of the key issues in neoliberal economics acknowledged as an economic stimulus for developing countries and countries facing rising inflation, unemployment and unequal wealth distribution (Mafi, 2008). With some features including collective basis, flexibility, popularity and reliance on social justice, sustainability, profitability, security and poverty alleviation, these credits are one of the most powerful strategies for empowering local communities in rural areas (Azizpour & Khodakarami, 2015). For this reason, the United Nations pays great attentions to micro credit as one of the most effective poverty eradication strategies, especially in developing countries. The purpose of micro-credit is to facilitate access to financial and human development programs for men and women, which can augment household income. Micro-credits provide rural capital, exert positive effects, bring about financial stability in the family and diversify the rural economy (Kim, 2013; UNFPA, 2011). The goals of micro-credit and micro-credit policies from the World Bank's perspective are alleviating poverty, empowering disadvantaged groups, especially women, assisting manufacturing units and their development, boosting the creation of new units, creating employment opportunities through self-employment, enhancing income efficiency of low-income and vulnerable groups, reducing the dependence of destitute villagers on farms and crops that are heavily affected by geographical conditions, especially drought, and diversifying their products (Qadiri Masoum & Ahmadi, 2015). With the extended supply of credit to rural areas, a number of market-oriented, government-oriented, and community-oriented approaches have been proposed. A feature shared by all of these approaches is that "credit plays a major role in alleviating rural household poverty" (Moazami, 1998), while the community-based approach encourages public participation and decentralized decision-making (Taleb & Najafi Asl, 2007). This approach aims to use innovative ways of distributing loans. The government-oriented approach has been in place since the 1950s by governments to subsidize smallholder farmers in rural areas in many developing countries. (Johnson & Rogalli, 2005). To market-oriented advocates, financial markets closely resemble competitive markets, and low-income villagers and small-scale units in rural areas, similar to other production and service units, have to meet their financial needs in this market. According to this approach, the government should refrain from interfering in these markets. They argue that the government intervention in this market disrupts the balance, undermining the villagers' power to meet their financial needs. Accordingly, they posit that the best strategy for the government is "to scale down its intervention and supervision, guide the market, and remove barriers and constraints facing the market" (Moazami, 1998). A review of these attitudes suggests that these credits should aim to focus and direct microfinance and ultimately empower vulnerable groups in the society.

The concept of empowerment refers to a broad range of concepts such as the freedom of choice, control over and access to resources, greater independence and confidence, among other things. Keller & Mbwewe (1991), for example, see empowerment as a process through which women are empowered to organize themselves, boost their self-esteem, and defend their rights of independent choice and control over resources. Ughbomeh (2001) also defines empowerment as giving women more access to resources and control over their lives, which bestows them a sense of independence and confidence (as cited in Navabakhsh, Azkia, Vosoughi & Sadat Moshir-e Bazareh, 2015). Women's empowerment is a dynamic process that encompasses women's ability to change the structures and ideologies that have retained them in a position of dependence. This process aids women gain more access to resources and control over their lives, enhance their independence and self-esteem and foster their self-confidence. In this sense, it improves women's self-image (Astin Afshan, Ali Beigi, Karami Dehkordi & Gholami, 2017). Empowering

women is one of the approaches to enhance women's ability to alter the structures and ideologies that have restrained them in lower positions. This process allows women to gain greater access to resources and decision-making, gain control over their life, and achieve independence and self-reliance (Rolfe et al., 2017). A scrutiny of above definitions suggests that empowerment consists of three shared elements or concepts. The first is *resources*, which includes variables of education, employment and other accelerating factors of empowerment. The second is *agency*, suggesting that women should not only be perceived as recipients of services, but as key players in the process of change and adoption of important life decisions with control over resources and decisions that yield a huge impact on their lives. The third is the achievements or outcomes resulting from the empowerment process. Achievements can range from meeting basic needs to more sophisticated accomplishments such as satisfaction, self-esteem, participation in social and political life, and so on (Ketabi, Yazdkhashti & Farrokhi Rastaei, 2005). For this theoretical framework, five stages have been proposed: a) Welfare: this phase focuses on the basic amenities and shortcomings such as education. B) Access: access to resources and facilities to improve the quality of life, including access to credit. C) Raising awareness: this is the stage at which women grow sensitive to the problems and causes. D) Participation: this stage is characterized with the active presence of women, and their voluntary participation. E) Control: it is the stage in which women gain decision-making power so that in addition to contemplating the problem, they propose the best solutions and monitor its execution (Navabakhsh et al., 2015). Accordingly, women's potentials for assuming empowerment management to attain development goals can be exploited by raising their aware of the impact and importance of women role in the decision-making process (Jain, 2018).

From the standpoint of empowerment, the fulfilment of basic needs is a fundamental right of people, and each person must be able to fully utilize his or her abilities and creativity. Therefore, women must learn to participate in the acceptance and distribution of responsibilities, both in the family and in the community with self-confidence and assurance (Shaditalab, 2001).

As an important goal of micro-credit, empowerment constitutes a major criterion for assessing the effectiveness of such credits (Estudillo, Quisumbing & Otsuka, 2001). The granting of micro-credit by supporting institutions, financial institutions, etc. represents a basic step on the path to empowerment. It is clear that socio-economic structures affecting the empowerment of disadvantaged groups such as female heads of rural families, and reducing empowerment to the mere use of credit may not fully meet the demands of the poor. Undoubtedly, however, it is a crucial step forward in boosting their confidence, quality of life, satisfaction and economic status.

2.2. Research background

In recent years, many studies in Iran and other countries have explored the empowerment of rural women, the role of micro authority in this field and its impact on the lives of receivers of these credits.

Sarah Wali, Humair & Tania (2019) examined and reported women's experiences of micro-credit and its impact on women's empowerment in the Sindh region of Pakistan. The results revealed that micro-level loans empower women and have a positive impact on their livelihoods. Al-Shami, Izaidin, Mohd Razali & Nurulizwa (2017) in a study on the impact of micro-credit on women's empowerment in relation to to welfare and decision-making report that access to micro-credit has a positive impact on women's monthly income. It also empowers women to make decisions about displacement, day-to-day expenses, children's schooling, medical care, and loan application decisions. Bushra & Wajiha (2015) argue that variables such as the content of education, women's economic participation, owning a bank account, and access to economic opportunities by women have a bearing on their empowerment. The findings of Mudaliar & Mathur's (2015) reflect the positive impact of micro credit on rural women empowerment. Saharan (2015) examined the challenges and barriers of micro credit in empowering poor women in India with their results demonstrating the lack of market knowledge and beneficial situations induced by difficult jobs along with poor accounting, recruitment of many relatives and acquaintances in the production unit, and their

pressure on sharing profits, setting arbitrary prices, high interest rates, disregarding inflation rates, laws and policies. This gradually leads to the bankruptcy of micro-businesses which are major barriers and challenge to the women empowerment in India. Gupta (2014) examined the acceptance and reception of micro-credit by rural households, analyzing the impact of micro-credit on these households and its role in rural development and poverty alleviation in north-eastern Indian villages. He concluded that micro-credit in these villages has exerted a positive impact on reducing rural poverty, augmenting the livelihoods of the people in these areas, and rural development. The results of the study by Rani Mohanty, Bijaylaxmi & Moahanty (2013) revealed that micro programs had a remarkable impact on both social and economic aspects of rural women in Edisha so that the successful performance of small businesses with the economic independence had boosted the empowerment of women.

The study of Farashi, Rahimian & Gholamrezaie (2019) exhibit that 55.4% of rural women receiving these loans are still housewives without a job. According to the results of their study, variables affecting women's empowerment include people's attitude of micro-credit, the loan granting institution's monitoring on how such credits are distributed, the extent of exploiting the loan in empowering activities, training of granting institution regarding the usage of credit and the total amount of the loan. The findings of Bagheri, Chenani Nasab, Golzadeh & Suri (2018) illustrate that the establishing micro credit funds can raise women's income and their share of contribution to the family assets, increase their decision-making power in the family and in the village, upgrade public beliefs about women, and maintain and extend teamwork to other areas. Nematollahi, Kaboli, Yazdani & Mohammadi (2017) illustrated the effect of monthly income, age, subscription to micro-credit funds, loan sufficiency, and education level on rural women empowerment. The findings of Saeedi, Chahsouki Amin, Momeni Hilali, Norouzi & Vahedi, (2018) show that independent variables of monthly household income, vocational and professional training, the priority of active participation of women in self-sufficiency schemes, social counseling, job diversification, income diversification and employment creation are significantly correlated with dependent variables economic empowerment of rural women and their subscription to credit funds. Mohammadi, Avatefi Akmal & Zamiri Arasteh (2018) look into the effects of micro financing on the empowerment dimensions of rural women, reporting that its impact is in general moderate with dimensions of decision making and self-confidence of rural women exerting the highest effect followed by dimensions of political empowerment, community status, economic empowerment, and the position within the family. All six dimensions of empowerment are directly and significantly correlated with each other. Therefore, empowerment in each dimension is significantly correlated with empowerment in other dimensions, indicating the synergistic power of empowerment dimensions. Afshani & Fatehi (2016) believe that education, social media, social support, public health and nutrition have a positive and significant association with the extent of empowering female heads of households. However, the variables of traditionalism and marital status was not significantly related to the extent of empowering female heads of households. The findings of Mohajeri Amiri, Mojaradi & Badsar (2016) also reflect that psychological and social factors are positively and significantly related to the empowerment of female heads of household in rural areas. The results of Ahmadpour, Abdi Torkami & Sultani (2014) study demonstrate that most participants are content with the success rate of women micro-credit funds. Further, economic, social, educational, supportive, functional and personality characteristics of respondents are significantly correlated with the success rate of these funds.

A review of the research on the impact of micro-credit on the ability of target groups in societies indicates the positive impact of credits and boosted empowerment of these groups. However, the level of empowerment varies according to socio-cultural and economic features of the communities. The present study seeks to investigate the effects of micro credit payments by one of official institutions called Imam Khomeini Relief Committee on female heads of rural households.

3. Research Methodology

3.1 Geographical Scope of the Research

The county of Zanjan is geographically between 25' and 47º to 54' and 48º east longitude and 27' and 36º to 15' and 37º north latitude, respectively. The central part of this city is surrounded by Qareh Poshtlu and Zanjanrood on north, Tarom on east and northeast and, Mahneshan on west and northwest, Ijrood on the south and southwest and Soltanieh on the southeast. According to the latest national administrative divisions, the central part consists of six counties and 140 villages, of which 110 are populated and two are abandoned (Zanjan Province Management and Planning Organization, 2015).

3.2. Methodology

Given the nature of questions raised in the present study, this study is classified as an applied research; therefore, a descriptive-analytical research method is adopted. Also, as far as the generalizability of findings is concerned, it is considered a survey. The statistical population of the study consists of female heads of rural households covered by Imam Khomeini Relief Committee in 38 villages of central part of Zanjan City. Given the limited population of the study and their availability, the complete count sampling methods was used. Hence, the sample comprises 110 rural female heads of households covered by Imam Khomeini Relief Committee.

Table 1. Distribution of questionnaires in the study villages
(Source: Research Findings, 2018)

Row	Village	Number of female head of rural households	Row	Village	Number of female head of rural households
1	Homayoon	4	20	Doasb	3
2	Chelgan	1	21	Zarnan	2
3	Qinarjeh	3	22	Qoltuq	3
4	Azad Sofla	12	23	Khatun Kandi	7
5	Hasan Abdal	1	24	Chayerlu	1
6	Sahleh	3	25	Qozlu	2
7	Razbin	3	26	Koushkan	10
8	Aqcheh Pireh	1	27	Bari	3
9	Chavarzagh	3	28	Chir	2
10	Papaei	1	29	Aminabad	2
11	Gogje Ghaya	6	30	Mohsenabad	3
12	Bonab	2	31	Haji Arash	2
13	Nimavar	2	32	Esfejin	1
14	Bulamaji	1	33	Yengijeh	2
15	Gouvali	2	34	Kenavand	1
16	Kordeh Nab	1	35	Buqda Kandi	4
17	Zaker	1	36	Kavand	7
18	Dizaj Abad	3	37	Golbolaghi	1
19	Pain Kuh	3	38	Dehshir Olia	1

The data were collected using library analysis and field surveys. The main data collection tool was a questionnaire and an interview. The questionnaire consists of closed-ended items scored on a 5-point Likert scale. To determine the reliability of the research instrument, a pretest (including 30 subjects other than the original sample) was conducted and its Cronbach's alpha value was estimated as 0.80, which indicated the reliability of the questionnaires. Descriptive statistics (mean, standard deviation) and inferential statistics (one-sample t-test and structural equations) were also utilized to analyze the data.

Table 2. Indicators used to assess the empowerment of rural women after receiving credits
(Source: Research Findings, 2018)

Variable	Index	Item	Source
Economic	Financial Independence and Savings	Empowering individuals to change their current income - empowering individuals to find a decent economic position - empowering individuals to improve their economic status - empowering individuals to earn more money - empowering individuals to meet their demands without seeking cash or other forms of assistance from others - empowering individuals to aid lower-income people - empowering individuals to access and use their family income	Esmaili & Khodadad (2016); Rezaei & Keshavarz, 2014)(
	Upgrading Business Skills and Opportunities	Empowering individuals to access essential workplace training - empowering individuals to keep abreast of the latest technologies for work - empowering individual to apply indigenous knowledge in their work - empowering individuals to take advantage of appropriate job opportunities - empowering individuals to create new and alternative jobs in the case of losing their jobs	
	Ability to pay off loans	Empowering individuals to access and use banking resources and facilities - empowering individuals to repay the loan on their own - empowering individuals to use the loan effectively for their job purposes- empowering individuals to pay the loan installments	
Social	Changing attitudes to the role of women	Promoting women's belief that they can hold a job akin to men – promoting the belief that women's role is not restricted to house chores (housework and childcare) – fostering the belief that women can be in charge of tasks outside the home – discouraging the belief that men are more successful than women in out-of-house affairs- promoting the belief that they are respected and cherished by her peers.	Qadiri Masoum & Ahmadi (2015); Rezaei & Keshavarz (2014)
	Participation in social affairs	Ability to participate in social affairs like PTA, cultural associations, etc. – Ability to attend in religious gatherings - Ability to take part in charitable activities (assisting the elderly, providing materials and equipment for people in the even to earthquakes, etc.) - Ability to work with neighbors and carry out group activities – Increasing the financial and intellectual ability of the women to engage in projects - Ability to participate in social affairs without expectation of any payment	
	Participate in social associations	Participate in official and unofficial organizations based in villages - Ability to participate in social associations such as PTA and cultural associations – Ability to attend assemblies, circles and lectures of their choice	
Psychological	Self-esteem	Having a sense of accomplishment in life - having a sense of vitality and usefulness at work; being able to help others effectively in the times of difficulties– not being ashamed of yourself - not feeling useless and unable to take care of works	Shakouri (2008); Esmaili & Khodaparast (2016); Rezaei & Keshavarz (2014)
	Intellectual independence	The ability to make important decisions about life including marriage of children, changing jobs, leading a purposeful life; increased possibility of applying intellectual management to family income and expenses.	
	Feeling of power	The power to change one's destiny – the ability to leave your mark on community events (economy, politics, etc.) – adopting an individualized view of life, - perseverance until the completion of an activity – leaving a positive impact on the routines of your life – attempts to do things with a greater concentration	
	Increasing self-efficacy	The ability to improve one's future and family – lacking a sense of inadequacy to change one's life and family using the available opportunities - greater efforts and not succumbing to poverty - lacking a feeling of worthless in one's activities and the deteriorating quality of life - the ability to remain cool, calm and collected in dealing with problems – ability to use skills to manage one's life - gaining insights into life over time and becoming a stronger and more capable person	

4. Research Findings

In the present study, female heads of households covered by the Imam Khomeini Relief Committee were all married. Descriptive findings obtained from the survey of respondents' age indicate that the majority of respondents (48.2%) are in the age group of 31-40 followed by 41-50 years (46.4%), 30 years and younger (3.6%) and 51-60 years

(1.8%) age groups, respectively. Respondents' literacy status also suggested that 29.1% are illiterate, 11.8% have primary education, 20.9% have junior high and secondary school education, 21.8% have a diploma and finally 16.4% have an associate degree and higher. A survey of the literacy status of rural women in the study area demonstrated that despite the elevated status of literacy and education of rural women compared to the past, women still have the highest illiteracy rate. In addition to a host of other problems, this produces a sense of distrust, inferiority, reclusion and isolation. A survey of the employment status of women receiving credits reveals that 25.5% are employed in service, 67.3% in agriculture and 7.3% in industry sectors. Moreover, the granted loans have led to the creation of jobs such as tailoring and hairdressing as well as the expansion of animal husbandry and carpet weaving.

The descriptive findings derived from a survey of respondents show that 3.6% of respondents are the head of family, 7.3% take care of one child, 47.3% take care of two children, 29.1% take care of three children, and 12.7% take care of four children and more. A survey of the duration of respondents' guardianship exhibits that 5.5% of respondents were the head of family for less than 4 years, 34.5% between 4 to 8 years, 52.7% between 8-12 years, and 7.3% between 12 and 16 years (see Table 3).

Table 3. Frequency distribution of respondents by number of children under their care
(Source: Research Findings, 2018)

	number of children under care						Length of caring (years)				
	Self-caring	1	2	3	+ 4	Total	Less than 4	4-8	8-12	12-16	Total
Frequency	4	8	52	32	14	11o	6	38	58	8	110
Percentage	3.6	7.3	47.3	29.1	12.7	100	5.5	34.5	52.7	7.3	100

The assessment of household income status before and after receiving the credit indicates improved income status of female heads of households following the reception of credits. The descriptive findings of the respondents' monthly income, with the exclusion of subsidies prior to the reception of credits suggest that only 2.7% of female headed households earned more than one million Tomans per month before receiving credit, and the majority of rural household heads (81.8 percent) earned between 600,000 and 800,000 Tomans. Descriptive findings on the respondents' monthly income, irrespective of state subsidies, reveal that the highest respondents' income (20.9%) is more than one million Tomans per month, while the lowest (2.7%) is 400 to 600 thousand Tomans per month. This suggests that the respondents' monthly income (excluding subsidies) increased after receiving the credits (see Table 4).

Table 4. Frequency distribution of respondents in terms of monthly income before and after receiving credits
(Source: Research Findings, 2018)

Monthly income (toman)	Before receiving credits		After credits	
	Frequency	%	Frequency	%
400-600 thousand	11	10	3	2.7
600-800 thousand	90	81.8	7	6.4
1,000,000 tomans	6	5.5	77	70
More than 1,000,000	3	2.7	23	20.9
Total	110	100	110	100

The analysis of respondents' view of the received credit items shows that the items of credit alignment with the needs of the applicants (4.69) and the bank interest of the credit (4.58) were ranked highest from respondents' perspective. Also, the process of applying and receiving credits and facilities (3.80), the number of installments and the repayment timetable (4.39) were ranked the lowest from the respondents' view. Concerning the status of individual skills after

receiving credits, the results reveal that in relation to human skills, items of socialization and enhancement of individuals and social creativity with a mean of 4.17 and 4.08, items of enhanced decision making and planning power with a mean of 4.24 in perceptual skills, items of training rural and artistic industries, agriculture, horticulture and animal husbandry with a mean of 4.25 and finally 4.24 in technical and specialized skills had the highest values, respectively.

The three main indicators of financial independence and savings, improved skills and business opportunities, as well as the access to and repayment of loans were employed to look into the economic dimension of empowering female heads of families receiving the credit. The descriptive findings regarding the financial independence and savings index exhibit that the items of "there are people more in need of assistance", "I am assured that I can improve my economic status" and “a share of my family assets including land, car, home, etc. belongs to me” with a mean of (4.22), (4.21) and (4.21) gained the highest values, respectively.

Moreover, the items of "I have access to and can afford insurance", "I can help those with a lower financial status" with a mean of 3.49 and 3.53 had the lowest values among the variables, respectively. The results of the descriptive findings obtained from the items related to skills and business opportunity index demonstrate that the items of "I am capable of supplying capital and raw materials", "I have access to the necessary training required for the job" and "I am able to reduce the risks associated with my job" with a mean of (4.28), (4.23), and (4.17) had the highest value, respectively, whereas the items of "I have convenient access to proper job opportunities", "I am capable of marketing and selling of my own product sales, "I can consult with experts about my job" with mean of (3.70), (3.76) and (3.91) had the lowest among the items, respectively.

The results of the descriptive findings extracted from items regarding access to and repayment of loans illustrate that the item "the loan is sufficient for taking care of matters" with a mean of (4.69) scored the highest, and the item "I am able to repay the loan on my own" with a mean of (3.95) scored the lowest the items. To look into the social dimension of empowering female head of households after receiving the credits, three main indicators of changing attitudes towards women's role, participation in social affairs and participation in social associations were used. The results of the descriptive findings obtained from the items related to the change of attitude towards the role of women suggest that the items "I am content with playing a social role in the family", "I am respected and cherished by my peers" and "I approve of women’s work outside the house” with a mean of (4.26), (4.23), and (4.20) respectively, scored the highest and items “I can take care of jobs outside the house ”, " I have autonomous enough in doing things "," I do not believe men are more successful than women in out-of-house affairs" with a mean of (3.56), (3.65) and (3.83), respectively, scored the lowest among other items.

The results of the descriptive findings obtained from the items related to the index of participation in social affairs suggest that the item of "I am able to attend religious gatherings" with a mean of 4.21 scored the highest and the item of "I am capable of participating in charity activities" (helping the elderly, providing goods and equipment for the victims of earthquakes, floods, etc.)” with a mean of 3.71 scored the lowest among other items. Furthermore, the descriptive findings obtained from the items related to the index of attendance in social gatherings reveal that the item of "I am able to attend social associations such as TPA, cultural associations, etc." with a mean of 4.22 scored the highest, while the item of "I take part in my favorite gatherings and sermons" scored the lowest average (3.67). The four main indicators of boosting self-esteem, intellectual independence, feeling of power and enhanced self-efficacy were used to examine the psychological (individual) status of empowering the female head of household after receiving credits. The results of the descriptive findings derived from the items related to the self-esteem index manifest that the item of "I am able to effectively aid those around me in case of trouble" with a mean of 4.17 scored the highest, while the item of "I am not ashamed of myself” with a mean of 3.60 scored the lowest among the items.

As for the second index (intellectual independence), the item of "I have a specific purpose in my life" with a mean of 4.21 scored the highest, while the item of "I can buy or change my house" with a mean of 3.65 scored the lowest

among all variables. In addition, the results of the descriptive findings obtained from the items related to the sense of power index demonstrate that the item of "I can change my destiny" with a mean of 4.25 scored the highest, while the item of "I don't give up before completing a task" with a mean of 3.55 scored the lowest among all items. Finally, as far as the self-efficacy improvement index is concerned, the highest mean 4.24 belonged to the item of "I do not feel unable to change my life and family with existing facilities", while the lowest mean 3.54 belonged to the item of "I can change my future and family"

To analyze the desirability difference using the numerical mean obtained from the questionnaire data, one-sample t-test was used. Given the scale range, the numerical mean varied from 1 to 5 on Likert scale. This value for all dimensions (social, psychological and economic) was higher than the numerical desirability of the test (estimated at 3). The difference between the empowerment dimensions of female heads of rural household at alpha level of 0.01 was significant and their deviation from numerical desirability was positively evaluated and estimated. The analysis of empowering female heads of rural households in economic, social and psychological (individual) dimensions reveals the higher status of these aspects of rural women empowerment. The results also illustrate that the t-test has the highest value in social dimension (Table 5). This is perhaps because even low self-reliance of women can reinforce their role and social base. Therefore, micro-credits have empowered women from the social dimension.

Table 5. Inferential findings related to the desirability dimensions of empowering female head of rural households

(Source: Research Findings, 2018)

Numerical desirability of the test = 3							
Variables	Mean	T statistics	df	Significance	Mean difference	95% confidence interval	
						Low limit	High limit
Social	3.921	49.751	109	0.000	0.921	0.884	0.958
Psychological (individual)	3.917	40.817	109	0.000	0.917	0.872	0.961
Economic	3.89	19.745	109	0.000	0.894	0.80	0.98

AMOS software was utilized to study the effects of micro credit on women's empowerment. Accordingly, the model was initially fit based on statistics of structural equations. The results of model fit indicate that the statistics are well-suited for the test.

Table 6. Model fit based on structural equation test statistics

(Source: Research Findings, 2018)

Goodness-of-fit measure	Recommended value	Structural model (result)
x^2 test statistic/df	3.00 ≥	1.16
GFI	0.90 ≤	0.957
AGFI	0.90 ≤	0.947
CFI	0.90 ≤	0.971
NFI	0.90 ≤	0.972
RMSEA	0.08≤	0.000
SRMR	0.05 <	0.000
TLI	0.90 ≤	0.981

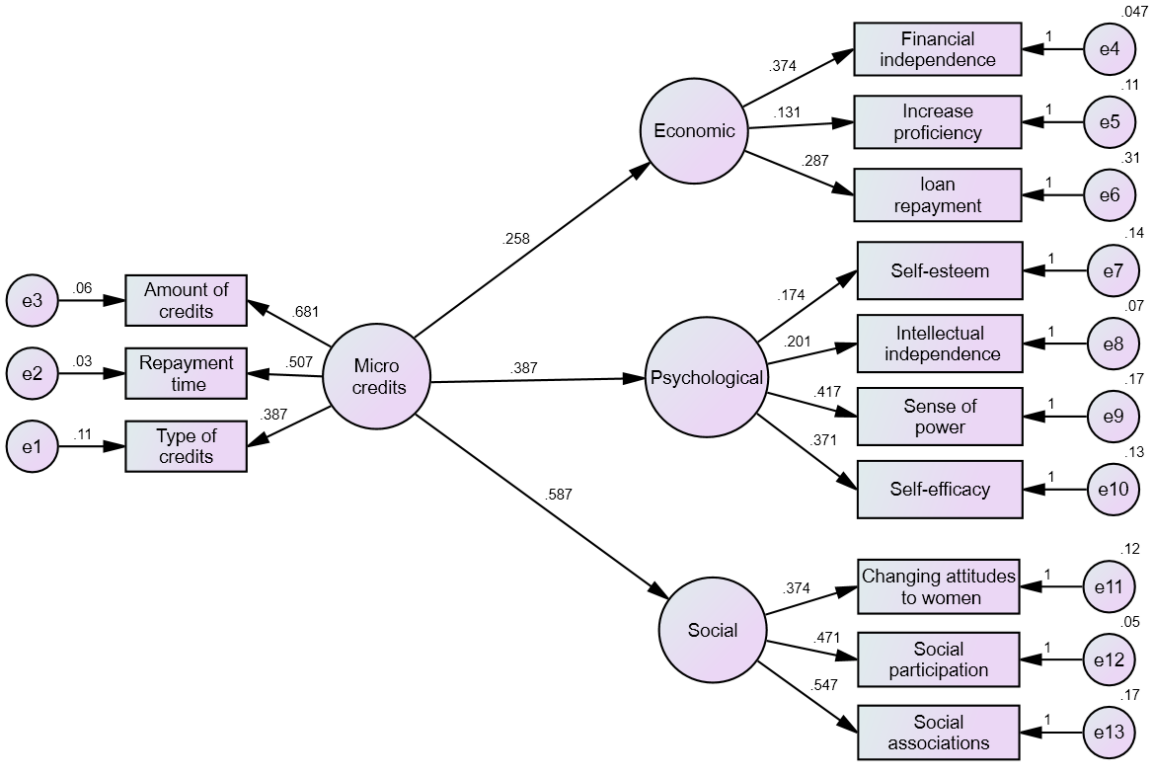

Figure 2. The impact of micro-credit on women's empowerment
(Source: Research Findings, 2018)

As shown in the figure and structural equation model (SEM), micro-credit is an independent variable and empowerment dimensions (economic, psychological and social) of women are dependent variable. The analysis and estimation of the regression and significance values of research dimensions in relation to indices of women's empowerment reveal that micro-credits have exerted a positive impact on women's economic, psychological and social dimensions (see Table 7). However, it is also worth noting that based on interviews with female heads of households who received credits from Imam Khomeini Relief Committee, the women under study did not have a permanent source of income to set up an economic activity. In addition, most women need an adequate source of income to take care of their children. They assert that the credits allocated, if sufficient to purchase capital goods, could serve as a source of employment and income. In some cases, women often have a sense of confusion as they lack the knowledge of setting up a business and relevant education. According to female head of rural household, concerns about the repayment of installments prevents women from engaging in risky activities. Also, the sum of each installment and payment intervals are major sources of problem for many of them. Therefore, in some cases, the allocated credits are spent on the costs of living and take care of children, rebuilding houses or saving in bank accounts to live off its interest

The proper length of repayment period as well as the type of credits (current or capital) also yield influence on its effect of improving women's empowerment. By increasing the repayment period, women have a greater chance of using the credit and diversifying their income. Further, for capital credits, it boosts the effectiveness of credit.

Table 7. Estimation of Regression and Significance of Research Dimensions and Indicators
(Source: Research Findings, 2018)

Dependent variable	Direction	Independent variable	Estimate	S.E.	C.R.	P
Economic	<---	Micro-credits	0/258	.047	.139	***
Psychological	<---	Micro-credits	0/387	.110	.064	***
Social	<---	Micro-credits	0/585	.058	.341	***
Financial independence	<---	Micro-credits	0/347	.121	.115	***
Skill improvement	<---	Micro-credits	0/131	.127	.895	0.87
Loan repayment	<---	Micro-credits	0/287	.126	.961	***
Self-esteem	<---	Micro-credits	0/174	.133	.363	0.67
Intellectual independence	<---	Micro-credits	0/201	.132	.627	0.051
Sense of power	<---	Micro-credits	0/417	.118	.942	***
Self-efficacy	<---	Micro-credits	0/371	.114	.574	***
Change of attitude towards women	<---	Micro-credits	0/374	.128	4.753	***
Social participation	<---	Micro-credits	0/471	.204	5.058	***
Social associations	<---	Micro-credits	0/547	.157	.274	***

5. Discussion and conclusion

The present study investigated the effects of micro-credit on the economic, social and psychological empowerment of female heads of rural households covered by the Imam Khomeini Relief Committee. The results revealed that the level of empowerment dimensions of female heads of rural households is fairly high. Accordingly, the social empowerment dimension had the highest desirability. This can be justified in that women's financial self-reliance, even at a low level, can reinforce their social role and social status. In other words, credits empower women socially. The results are aligned with those reported by Rani Mohanty et al. (2013), Mohajeri Amiri et al. (2016), Ahmadpour et al. (2014) and Bagheri et al (2018). The results regarding psychological empowerment of female heads of rural households reveal that granted credits had the highest effect on the sense of power with a regression value of 0.416. Research shows that received credits can increase women's purchasing power and subsequently improve their ability to make important decisions about life events such as child marriage, changing careers, purpose of life, the intellectual management of income and family spending, foster the psychological dimension of empowerment.

As for the economic dimension of empowerment, the results illustrate that there is a positive relationship between the credits granted and the economic empowerment of female heads of rural households, suggesting that an increase in the amount of credit will boost the economic empowerment of female heads of rural households. Also, the regression coefficient of the structural equations indicates that there is a positive relationship between these two variables. The findings of the study derived from structural equation analysis demonstrate that the highest regression between the credits and the economic empowerment of rural women was observed in two indicators of income and employment opportunity. Therefore, it can be argued that there is a positive correlation between income indices and employment opportunities as the independent variable and credit indices as a dependent variable. The results of economic empowerment of female heads of rural are consistent with those reported by Sarah Wali et al. (2019), Al-Shami et al. (2017), Bushra and Wajiha (2015), Mudaliar and Mathur (2015), Gupta (2014), Nematollahi et al. (2017) and Saeedi et al. (2018).

Based on the findings of this research, the following suggestions are offered:

- Increasing the value of granted credits is commensurated with the ideas proposed by female heads of households;
- Increasing the provision of capital credits;
- Increasing the repayment period;
- Conducting detailed and rigorous studies on the amount of capital required to create new jobs according to the specific conditions and situations of each region and granting loans based on the outcomes of such studies;

- Organizing training courses with financial support to introduce women to new activities and create employment for them;
- Informing women of the goals, tasks and guidelines to increase their awareness of the crediting process.

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بررسی اثرات اعتبارات خرد بر توانمندسازی زنان سرپرست خانوار روستایی تحت پوشش کمیته امداد امام خمینی (ره)
(مطالعه موردی: بخش مرکزی شهرستان زنجان)

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چکیده مبسوط

۱. مقدمه

همواره تلاش برای برابری جنسیتی و کاهش موانعی که حضور زنان را از عرصه های اجتماعی و اقتصادی دور می‌کند، برای جوامعی که می خواهند توسعهٔ پایدار را تجربه کنند؛ یک نیاز واقعی بوده است. نادیده گرفتن زنان به عنوان نیمی از نیروهای اثرگذار اجتماعی به معنای استفاده نکردن از تمام پتانسیل‌های موجود یک جامعه به منظور بهبود شرایط و طی کردن مسیر توسعه در جامعه مذکور است. کمیته امداد امام خمینی (ره) یکی از موسسات عام‌المنفعه می‌باشد که یکی از وظایف آن، ایجاد تسهیلات و ارائه خدمات به افراد و خانواده‌های نیازمند است؛ از جمله گروه‌های نیازمند بهره‌مند از خدمات کمیته امداد امام(ره)، زنان سرپرست خانوار روستایی هستند که با توجه به شاخص‌های اقتصادی موجود، از شرایط اقتصادی مناسبی برخوردار نیستند. این نهاد در راستای توانمندسازی جامعه مزبور تاکنون اقدام به ارائه تسهیلات مالی در سطح روستاهای استان زنجان نموده است. بر این اساس، پژوهش حاضر با هدف بررسی نقش اعتبارات خرد (ارائه شده توسط نهاد مذکور) در توانمندسازی اقتصادی زنان سرپرست خانوار در نواحی روستایی در جهت پاسخگویی به سؤالات زیر تدوین شده است: - اعتبارات اعطایی چقدر باعث توانمندسازی زنان سرپرست خانوار روستایی شده است؟ با توجه به اهمیت مقوله توانمندسازی، اعتبارات خرد می‌تواند در ایجاد اشتغال و درآمد زنان روستایی سرپرست خانوار تأثیرگذار باشد؟

۲. مبانی نظری

اعتبارات خرد، یکی از مباحث عمده در بحث توانمندسازی گروهها و جوامع نیازمند حمایت مالی از جمله جوامع روستایی است که از زمان گسترش آن تاکنون، دیدگاه‌های بازارگرا، دولت گرا و جامعه گرا مطرح شده است. مرور دیدگاههای یاد شده نشان می‌دهد؛ هدف از اعطای اعتبارات تمرکز و جهت دهی به سرمایه‌های خرد و در نهایت توانمندسازی گروهها و اقشار آسیب‌پذیر در جوامع است. توانمندسازی زنان از جمله رهیافت هایی است که برای ارتقای قابلیت زنان برای تغییر ساختارها و ایدئولوژی که آنها را در موقعیت‌های فرودست قرار می‌دهند؛ کمک می‌نماید. توانمندسازی یکی از اهداف مهم اعتبارات خرد می‌باشد و این شاخص معیار مهمی برای سنجش آن به حساب می‌آید. اعطای اعتبارات خرد از سوی نهادهای حمایتی، مؤسسات مالی و... یکی از گام‌های اولیه جهت قرارگیری در مسیر توانمندسازی است. واضح است که سازه‌های اجتماعی – اقتصادی مؤثر بر توانمندسازی اقشار و گروههای نیازمند از قبیل زنان روستایی سرپرست خانوار، متعدد می‌باشند و تقلیل توانمندسازی به صرف اعطای اعتبارات، آن هم در حد خرد نمی تواند به طور کامل پاسخگوی انسانهای نیازمند باشد؛ اما بدون شک گامی اساسی و مهم در جهت افزایش اعتماد به نفس، کیفیت زندگی، رضایت‌مندی و سطح اقتصادی آنان است.

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۳. روش تحقیق

تحقیق حاضر با توجه به پرسش‌های مطرح شده در آن، به لحاظ ماهیت کاربردی و از نظر روش، توصیفی ـ تحلیلی و از لحاظ قابلیت تعمیم یافته‌ها نیز از نوع پیمایشی محسوب می‌شود. جامعه آماری تحقیق، زنان روستایی سرپرست خانوار تحت پوشش کمیته امداد امام خمینی (ره) در ۳۸ روستای بخش مرکزی شهرستان زنجان می‌باشند که تمام شماری شده‌اند؛ لذا حجم جامعه آماری و حجم نمونه ۱۱۰ نفر می‌باشند. روش جمع آوری اطلاعات کتابخانه‌ای و میدانی و ابزار گردآوری اطلاعات، پرسشنامه می‌باشد. پایایی پرسشنامه بر اساس مقدار آلفای کرونباخ آن برابر با ۰/۸۰ به دست آمد که نشانه مناسب بودن مقدار آن می‌باشد. به منظور تجزیه و تحلیل داده‌ها از دو روش آمار توصیفی (میانگین، انحراف معیار) و استنباطی(آزمون تی تک نمونه‌ای و معادلات ساختاری) استفاده شده است.

۴.یافته‌های تحقیق

تحلیل میانگین عددی حاصل از سطح ابعاد توانمندسازی زنان سرپرست خانوار روستایی در ابعاد اقتصادی، اجتماعی و روانشناختی (فردی) مبین بالا بودن این سطوح از ابعاد توانمندسازی زنان سرپرست خانوار روستایی می‌باشد. همچنین نتایج نشان می‌دهد میزان آماره t در بعد اجتماعی بیشترین میزان را به خود اختصاص داده است. بررسی و برآورد مقادیر رگرسیون و معناداری ابعاد و شاخص های تحقیق بر روی توانمندسازی زنان نشان می دهد، اعتبارات خرد بر روی ابعاد اقتصادی، روان شناختی و اجتماعی زنان مؤثر بوده است لیکن یادآوری این نکته نیز الزامی است که زنان مورد مطالعه منبع درآمد دائمی برای شروع یک فعالیت اقتصادی را ندارند. آنها اظهار نمودند میزان اعتبارات تخصیص یافته در صورتی که امکان خرید کالاهای سرمایه ای را بدهد؛ می‌تواند منبع ی برای ایجاد اشتغال و کسب درآمد گردد. یافته‌های پژوهش حاصل از بررسی معادلات ساختاری نشان می دهد که بالاترین میزان رگرسیون محاسبه شده بین اعتبارات اعطا شده و توانمندسازی اقتصادی زنان روستایی، دو شاخص درآمد و فرصت اشتغال بوده است. از این‌رو می‌توان پذیرفت که بین شاخص‌های درآمد و فرصت‌های اشتغال به عنوان متغیر مستقل و شاخص‌های اعتبارات اعطا شده به عنوان متغیر وابسته، اثر مثبت وجود دارد.

۵. بحث و نتیجه گیری

ارزیابی وضعیت درآمد خانوارها قبل و بعد از دریافت اعتبارات نشان می‌دهد که وضعیت درآمد زنان سرپرست خانوار پس از دریافت اعتبارات بهبود یافته است. همچنین نتایج پژوهش نشان می‌دهد بعد توانمندسازی اجتماعی بیشترین میزان مطلوبیت را به خود اختصاص داده است. دلیل این امر را می‌توان اینگونه بیان کرد که خود اتکایی مالی زنان هر چند کم هم باشد، باعث افزایش نقش اجتماعی و پایگاه اجتماعی آنان می‌شود و یا به عبارتی اعتبارات موجب توانایی آنان از بعد اجتماعی گشته است. نتایج به دست آمده در خصوص توانمندسازی روان‌شناختی زنان سرپرست خانوار روستایی بیانگر آن است که اعتبارات دریافتی بیشترین تأثیر مثبت را بر روی بعد احساس قدرت با مقدار رگرسیون ۰.۴۱۶ داشته است. در بعد اقتصادی توانمندسازی، نتایج به دست آمده نشان می‌دهد بین اعتبارات اعطا شده و توانمندسازی اقتصادی زنان سرپرست خانوار روستایی رابطه مثبت وجود دارد، به این معنی که با افزایش اعتبارات، توانمندسازی اقتصادی زنان سرپرست خانوار روستایی هم افزایش می‌یابد.

کلمات کلیدی: توانمندسازی زنان، اعتبارات خرد، شهرستان زنجان.

تشکر و قدردانی

پژوهش حاضر برگرفته از پایان نامه کارشناسی ارشد نویسنده دوم (وحیده فکور) گروه جغرافیا، دانشکده علوم انسانی، دانشگاه زنجان، ایران است.

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Representation of Opportunities and Areas for Agro-tourism Development in Rural Areas (Case Study: Villages of Tehran Province)

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Abstract

Purpose- Agro-tourism and the development of farm-based tourism businesses have emerged as a creative and innovative approach to rural tourism, which exploits the potentials and capabilities of agricultural activities as unique opportunities for employment and development and poverty alleviation. The purpose of this study is to identify opportunities and areas for Agro-tourism development in rural areas of Tehran Province.

Design/methodology/approach- This is an applied research that adopts a descriptive-analytical approach. The statistical population of the study consisted of the rural areas of Tehran Province, of which 8 towns and three villages from each town were selected as the sample. Data collection was conducted using both library and field survey methods; however, the main focus of the research was on field studies, which involved a questionnaire and face-to-face interviews. The questionnaires were prepared for three groups of villagers, tourists, and officials separately. The sample size for villagers was determined using Cochran formula (n=261). Also, since the exact number of tourists and officials was not known, the sample size of these two groups was selected using purposive method (n=31 and n=20, respectively). Data were analyzed using descriptive (mean and frequency) and inferential statistical methods (Chi-square test, one-sample t-test and Mann-Whitney test).

Findings-The results suggest that government support and infrastructure improvement, the organization of local festivals related to farm products, the participation of tourists in harvesting, the direct presence of tourists in farming, job creation, and promotion of rural income levels are the most factors that influence Agro-tourism development in rural areas of Tehran Province. According to the results, showed all respondents agreed on the positive impact of the studied measures on Agro-tourism development.

Key words-Tourism, Rural tourism, Agro-tourism, Villages of Tehran Province.
Paper type- Scientific & Research.

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1. Introduction

Today, tourism and its businesses associated with this value-creating industry have become a dynamic driver and a new strategy for achieving developmental goals and economic prosperity. The tourism economy with its significant share in generating currency and promoting start-ups has contributed to the diversification of employment, especially in rural areas. From the economic dimension, rural tourism helps alleviate poverty by expanding small business centers, fostering and transforming risky resources into high-yielding resources, and increasing profitability and income distribution (Asghari & Jafari, 2018). Given the predominance of agricultural activity in rural areas and the multifaceted vulnerability of this type of activity, it can be argued that today agriculture and its traditional activities can no longer meet the needs of rural communities. In this regard, Agro-tourism is one of the strategies proposed for diversification and sustainable rural development (Norouzi & Fathi, 2018). Agro-tourism as a subset of rural tourism is concerned with the accountability and benefits derived from local community (Salahi Esfahani, 2018) and can be promoted by encouraging villagers to offer agricultural products and services to tourists, such as the pleasant landscape of agricultural lands, field trips, and site preparation of settlements alongside farmland for leisure time. This can contribute to the prosperity of the agricultural sector (Anabestani & Mozaffari, 2018). Tourism, especially agro-tourism, paves the way for entrepreneurial activity in the rural environment. Entrepreneurship in relation to ecotourism and rural tourism as a supplement to agricultural activities (Asghari & Jafari, 2018) is concerned with criteria such as conservation, recreation and leisure, non-consumer values of agriculture (Razeghi Borkhani & Mohammadi, 2018) and the transition from production-orientation in this sector to multifunctional agriculture (Yazdanpanah, 2018). The prosperity of Agro-tourism in rural areas demands a thorough understanding of the capabilities, relative advantages, and special products of each geographical area. The entrepreneurial activities of the agricultural sector pertained to the farm and the natural environment of the village will lead to the emergence of a new form of business in the villages called *green entrepreneurship* (Rezaei et al., 2018). Green Entrepreneurship can be defined as establishing a new business in response to a recognized opportunity to make profits and mitigate environmental side effects (Wallenberg, 2012). Achieving sustainable Agro-tourism development depends on local community cooperation (Barbieri, 2013). In Agro-tourism, beyond transactions related to housing, food and leisure activities, the direct sale of local products and industries yield other beneficial effects such as cultural interactions, recognition of the role of women in rural communities, honoring of the role of farmers in society and promotion of cultural exchanges (Lopez & Garcia, 2006; Nouri, Moradi Hosien, Moradi & Pasandi, 2017). In Agro-tourism, the visitors need to pay a fee to the farmer in return for the relevant services offered by the tourism units.

The recognition of target market is one of the requirements of Agro-tourism development (Varmzayari, Rahimi & Babaei, 2017). Agro-tourism lays the ground for the diversification of farm-based economic activities and related fields and concentrates on leisure activities in the farms, harvesting and direct purchase of products, organization of local festivals to showcase local products, the sale of agricultural and livestock produce, and the appreciation of natural landscapes on weekends and holidays. Considering the broad geographical breadth of Iran in terms of size, climatic conditions and various environmental resources, there are substantial capacities and potentials for development of tourism industry especially in rural areas.

Rural settlements constitute a significant share of the country's natural arena and agricultural activities, the diversification of crop production, opportunities and areas for tourism can boost various dimensions including ecotourism and Agro-tourism. Despite the long history of this industry, especially in European countries, it is still a new and emerging industry in Iran. In addition to booming economic growth and job creation in rural areas, the correct identification of destination villages and reliance on environmental capabilities will increase the sustainability of rural population and the share of value added and generated by this sector in the entire economy of Iran. Agro-tourism has not only developed as a strategy of economic diversification around the world, but also as a set

of economic and non-economic goals, entrepreneurship and rural development (Valdivia & Barbieri., 2014). In Agro-tourism, tourists can pick fruits and vegetables, ride horses, taste honey and buy various products and crafts from farm stands and shops and engage in other forms of activities (Hepburn, 2008). Therefore, agro-tourism with its complementary role in agricultural activity represents a means of agricultural development and revitalization in diverse areas of the country; however, given the risks associated with economic, social, natural and psychological dimensions which pose a threat to agricultural activities and consequently agro-tourism, it is important to study this subject in detail (Heidari et al., 2016). Despite the opportunities and areas for the development of agro-tourism activities, the lack a clear understanding of this fledgling industry by rural residents will thwart the implementation of any action in this direction. A thorough understanding of the relative advantages and capabilities of rural areas is vital for their proper exploitation. Many of the entrepreneurial capacities and potentials in the rural agro-tourism sector of the country remain unknown, and there is insufficient information about this field. Tehran Province with 756 inhabitable rural areas and a wide range of environmental resources such as farms, orchards, springs and rivers, mountainous areas and highlands as well as features pertained to the local characteristics of each village are exposed to a broad spectrum of capabilities and potentials in the realm of agro-tourism or farm tourism development. However, despite all the resources and capabilities available, agro-tourism-based businesses in rural areas of the province have not been adequately developed on the one hand, and the locals are not sufficiently aware of the relative advantages of agro-tourism on the other hand. In this regard, the present study aims to develop agro-tourism businesses in rural areas of Tehran Province in order to answer the question regarding the opportunities and potentials for agro-tourism development in rural areas of Tehran Province.

2. Research Theoretical Literature

Today, tourism is recognized as a dynamic industry and a strategy to achieve national goals of sustainable rural development. Rural tourism is a branch of the tourism industry which is considered as part of the tourism market and a policy for rural development. In addition to its relative advantages, tourism can bring about crucial economic effects such as hampering rural migration, creating employment opportunities for surplus labor forces, diversifying the rural economy alongside other economic sectors, increasing rural households' income levels, and generating demand for agricultural produce and relevant industries (Bagheri & Rashidekloir, 2018). Rural tourism emerged into the rural development literature in the second half of the twentieth century (Khani, Khosravimehr & Toorani, 2014) and the gradually boom of activities in this sector has laid the ground for the emergence of diverse forms of rural tourism. Rural tourism has flourished in the rural areas of Iran over the last two decades (Orouji, Alizadeh, Abyaneh & Safavi, 2018) and has produced numerous job opportunities alongside agricultural and other rural activities (Start, 2010), resulting in increased rural incomes, the satisfaction of rural residents and their active participation in community, as well as diminished rural migration to cities (Motiei Langroud & Kateb Azgami, 2018). To realize the goals of 2025 Vision Documents regarding the arrival of 20 million tourists and the employment of about 6.5 million people in this sector, all tourism facets, including rural areas, should be exploited (Hesam, Rezvani & Faraji Sabokbar, 2016).

Agro-tourism blends the words agriculture and tourism. The amalgamation of tourism and agriculture will produce a new subordinate type of tourism that is more spatially restricted than tourism and even rural tourism, illustrating an image that is primarily based on farms and agricultural affairs. Agro-tourism is one of the major forms of tourism playing a pivotal role in rural and agricultural development (Varmzayari et al., 2017). While generating employment opportunities in rural areas, this type of tourism can provide tourists with a farm-based tourism experience (Rezvani, Najarzadeh & Torabi, 2016). As a complement to agricultural activities (Badri, Salmani & Heidari, 2016), it can also contribute to the flourishing of rural economy. This type of tourism as a subdivision of rural tourism revolves around issues including visiting the natural environment of villages and agricultural fields by tourists, allowing them to experience life in the farm, participating in harvesting process and buying goods and crafts directly from the farm, basking in the landscape of farms and gardens, strolling in farms, making a direct and affordable

purchase, having access to organic products, especially dairies, spending some leisure time in the gardens and farms, riding horses, hunting, and hiking in the neighboring mountainous areas, among other things.

Today, the close link between tourism and agriculture cannot be reduced to a mere product of tourism, and it is more than just a service offered in rural areas. It represents a new way of ascertaining travel and raising positive awareness of local people's culture and the environment. (Sathe, 2012). Since the majority of people may have little or nothing to do with agriculture, agro-tourism offers an opportunity for urban dwellers to enjoy nature and culture, gain insights about agricultural activities. As a result, this increases the purchase of agricultural products (Choo & Petrick, 2014). Agro-tourism is a part of rural tourism offering a broad range of recreational and tourism services. In fact, agro-tourism involves any types of measures taken by a farmer for the leisure or the training of people to promote farm products and generate additional farm income (Samani Qotbabadi, Torabi Farsani, Shafi'i, Bazrafshan & Ghaffari, 2017). Agro-tourism describes the act of visiting a farm or any horticultural or agricultural activity for the purpose of pleasure, education, or active participation in farm activities or operations, which also enhances the economic productivity of the farm (Bondoc, 2009). Agro-tourism can be considered as a union of tourism, villages, farms and entrepreneurship. In light of the thriving tourism activities and the improved infrastructure in this area, rural tourism can improve the quality of life among the villagers and raise their awareness so that they see farming and agriculture as a potential sub-branch of rural tourism called agro-tourism. Agro-tourism requires the expansion of infrastructure, such as settlements and access networks, local community participation and risk-taking of residents in the creation of new businesses and, most importantly, a thorough understanding of agro-tourism contexts and opportunities.

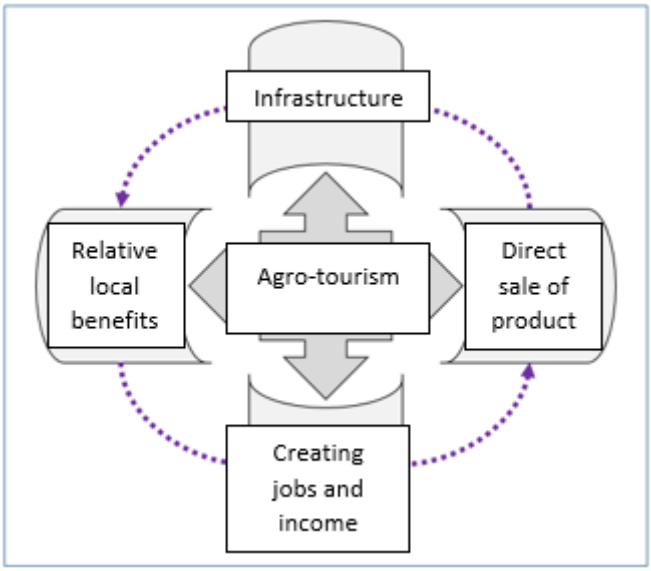

Figure 1. Opportunities and areas for agro-tourism development
(Source: Research findings, 2019)

Various studies have explored tourism, especially rural agro-tourism over the past decade; however, most researchers have focused on the conceptual frameworks and definitions of this type of tourism, with few delving into the new and varied opportunities for agro-tourism. This can embrace diverse farm-based services. In the following, some of these studies are introduced:

Welteji & Zerihun, (2018) underscored the need for government support of education and the involvement of relevant state agencies to raise the awareness of tourists about the benefits of agro-tourism.

In another study, Lupi, Giaccio, Mastronardi, Giannelli & Scardera (2017) investigated the characteristics of agro-tourism and its role in rural development and found that many rural settlements

in Italy possess enormous potentials in farm tourism, and development of this domain of tourism aids to the growth of rural population and improvement of the rural environment and landscape.

Lago (2017) also pointed that factors such as security, diversification of farm activities and access to the target market are the major parameters of agro-tourism development.

Maruti (2010) asserted that the existence of settlements in farms, adequate water and vegetable resources, on-site cooking in the field, the availability of health care services, the presence of a pond or lake in the field for swimming and fishing, the possibility of direct purchase from the farm and the visit of livestock are the major aspects of agro-tourism development.

Yazdanpanah (2018) also found that due to the myriad of challenges facing the rural agricultural sector, the activities of this sector are shifting from production orientation to post-production orientation or multifunctional agricultural model. In this regard, multifunctional agriculture as an approach to the promotion of sustainable development in rural areas has become a point of reference for rural policymakers and farmers. The adoption of this multi-functional approach, which is a subset of agro-tourism unlike the conventional approach, can promote entrepreneurship.

Najarzadeh & Torabi (2017) in a survey of community-based agro-tourism development planning based on SOAR framework reported that factors such as product packaging, entrepreneurship support, training, constant running of grape festivals, greater synergy between stakeholders and the division of labor between participants commensurated with their power and responsibility are the most important executive strategies for developing agro-tourism in the villages under study.

Samani Qotbabadi et al. (2017) identified agro-tourism capacities of Jahrom City using TOWS model. They demonstrated the potentials of agro-tourism from a strategic management perspective. According to the findings, aggressive strategy, conservation and emphasis on agro-tourism development and tourists' demand to visit farms and agro-tourism destinations as well as the use of organic products are the best strategy to bolster agro-tourism in the study area.

Bouzarjomehri, Shayan & Qandahari (2017) investigated the role and status of agro-tourism in rural development. In this regard, he emphasized the importance of formulating a comprehensive agro-tourism plan and identifying each region's tourism potentials as well as describing each tourism's agricultural product to capture unmet demand and respond to the current demand. In addition, collaborating with agencies in charge to identify agro-tourism farms as entrepreneurial firms, encouraging people to participate in the development of tourist infrastructure and facilities, and attempting to establish a tourism cycle in the provinces and to organize agro-tourism educational and recreational festivals are other important issues underscored by him.

Amiri, Ehsanifar, Naderi & Rostami (2016) found that agro-tourism, which comprises four dimensions of village, farmer, farm and tourist, has a bearing on the development of rural entrepreneurship through economic, social, cultural and economic effects. These four elements are interactive and interrelated and can affect one another.

Karimi (2014) referred to agro-tourism entrepreneurship as a new strategy for rural development; however, tourism in general and agro-tourism in particular have to be creative and meet the growing demand of tourists. Drawing on innovations, they need to diversify services and products and pave the way for business development, especially small businesses and entrepreneurship development.

In light of the literature review and the conceptual literature of agro-tourism, we can generally identify five distinct approaches to the development of activities, contexts, opportunities, and benefits of agro-tourism development, including bolstering, utilitarian, community-based, recreational and integrated approaches (see Table 2). Considering the type and characteristics of the integrated approach to agro-tourism, which merges the above-discussed views, this approach has been adopted in the present study and the research criteria and methods will be based on this approach.

Table 1. Approaches to agro-tourism
(Source: Novrouzi and Fathi (2018) and the findings of research)

Approaches	Orientation and type of outlook
Bolstering (upgrading) approach	It considers infrastructure development and housing provision as a priority and concentrations on public sector cooperation and support for private sector investment in tourism. This approach maintains that tourism development is inherently good, bringing about many opportunities for the host community.
Utilitarian approach	It focuses on advantages such as wealth creation, development of start-ups, employment creation and marketing, positing that tourism is the most effective strategy to generate income.
Community-based approach	It views agro-tourism as essential to revitalizing long-standing rural traditions, holding local festivals, fostering interactions and cultural relationships, and preserving rural values. It also considers tourism an apt opportunity for cultural exchange and interaction of villagers and tourists.
Recreational approach	It sees agro-tourism as a way of drawing urban dwellers to areas distinct from urban congestion and pollution. This approach emphasizes the potentials of direct purchase from the farm, hiking, hunting, enjoying nature, setting up garden-salons and recreational gardens for strolling and spending leisure time on the farm.
Integrated (Systematic) Approach	This stresses the preservation of rural environment, providing the necessary infrastructure for agro-tourism, including suitable accommodation and transportation network, employment and value creation, organization of local festivals, and recreational activities on the farm.

3. Research Methodology

3.1 Geographical Scope of the Research

With a total area of about 12981 square kilometers, Tehran Province has accommodated a population of over 814698 people in rural areas (according to 2016 statistics). It consists of 16 towns, 33 districts, 44 townships, 71 villages and 756 counties, of which 291 are completely uninhabited (see Figure 1). The total area of agricultural and horticultural lands under cultivation in the province is 138038 and 48926 ha, respectively. The total amount of agricultural and horticultural produce in the province adds up to 3972328 tons. The highest crop area is dedicated to wheat and barley, and fruits such as pistachios, apples, berries, peaches, cherries, apricots and pomegranates are the most well-known crops of this province with a production quantity of 599850 tons. The rural areas of Tehran Province occupy a special position in terms of cattle production so that in 2016 there were a total of 9625 livestock units in operation that bred over 1447417 domesticated animals in the province.

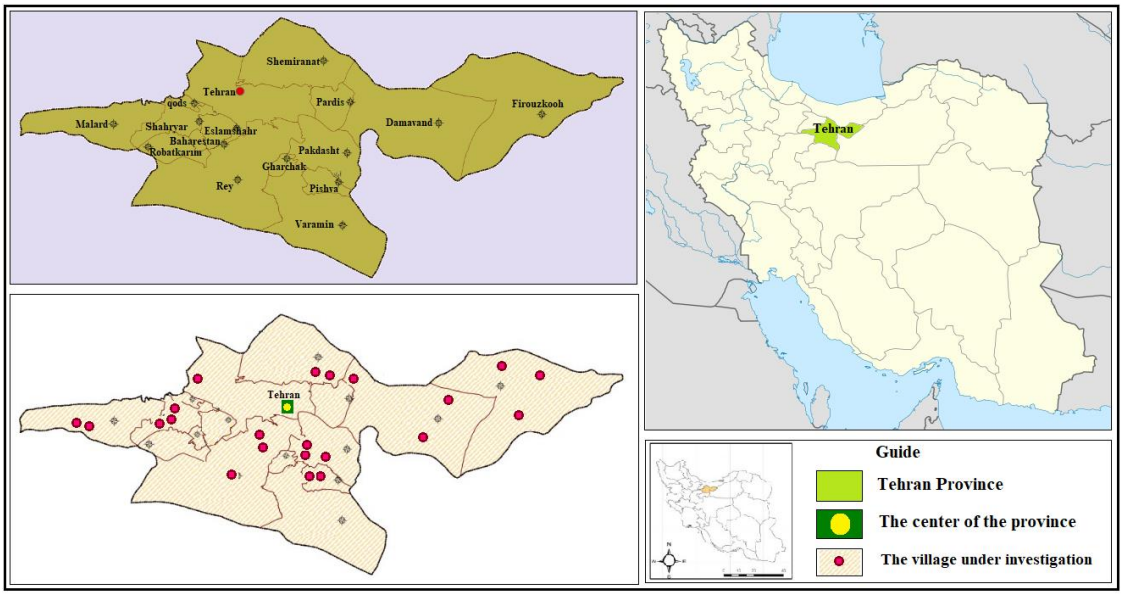

Figure 2. Map of the study area
(Source: Iranian Statistical Center, 2016)

3.2. Methodology

This is an applied research in which a descriptive-analytical method has been adopted. The data was collected through document analysis and field surveys. The statistical population of this study consisted of three groups of rural development officials in provinces, local people and tourists who were selected from 8 rural areas in Damavand, Firoozkooh, Shemiranat, Pishva, Pakdasht, Shahriar, Malard, and Ray towns in Tehran Province. Of each town, three villages were chosen as the sample (see Table 1). The main reason for the inclusion of above towns in statistical population was their enormous capacity in agro-tourism development and the large number of tourists in rural areas of these towns. In the group of rural locals, the sample size was determined by Cochran formula (n=261). Also, as the exact number of tourists and experts was not known, the number of samples in these two groups was determined using purposive method (n=31 and n=20, respectively). The field data was collected through a questionnaire and face-to-face interviews. The questionnaire items were designed based on the main research question. Accordingly, 17 variables were developed and the items were prepared in two forms of open and closed items using a 5-point Likert scale. The validity of the questionnaire was confirmed by experts in the field, and Cronbach's alpha test was utilized to assess the reliability of items (r=0.893). Statistical analysis was conducted using a set of descriptive and inferential statistics (one-sample t-test, chi-square and Mann-Whitney) and based on SPSS software output. Finally, the most important parameters affecting the development of agro-tourism in rural areas of Tehran Province were identified and explained.

Table 2. Towns and villages under study
(Source: Research findings, 2019)

Town	Village
Damavand	Jord – Ziyarat, Hoveir
Firouzkooh	Lezur - Jelizjand - Khamdeh
Pakdasht	Golzar - Filestan - Aluak
Shemiranat	Great Lavassan, Ahar – Barg-e Jahan
Shahriyar	Qajar Takht-e Rostam - Torpaq Tape - Qajar Abad
Mallard	Akhtar Abad – Gale Kahriz - Arastou
Ray	Amin Abad – Dehkheir - Klein
Pishva	Yusuf Reza - Tarand Paein

4. Research Findings

4.1. Descriptive statistics

The descriptive findings related to the demographic characteristics of the subjects exhibit that the highest and lowest number of responders were in the age group of 26 to 35 years (29.1%) and 18-25 years (7.7%), respectively. In the group of officials and experts, the majority (35.5%) belonged to the age group of 46-55 years, and in the group of tourists, the highest frequency was observed in the age group of 36-45 years. In regard to the gender, 88.9% of respondents were male and 11.1% were female. As for the level of education, the results of survey showed that respondents with a diploma or associate/bachelor's degree had the highest frequency with 33% and 24.9%, respectively. Of 261 rural respondents, 88 (33.8%) were also self-employed.
To evaluate the capabilities and opportunities of agro-tourism development and the formation of agro-tourism entrepreneurship activities in rural areas of Tehran Province, 17 indicators were developed as sub-categories of main items. Descriptive findings related to the rural perspective suggest that government aids in form of loans and subsidies (mean= 4.13). Moreover, employment creation and promotion of rural income as a result of agro-tourism development programs and projects (mean=3.95), weekend vacations on the farm (mean=3.85) and an expansion of resorts and recreational activities on farms (mean=3.82) are the major opportunities and areas for agro-tourism development in rural areas of Tehran Province.
Supplying local and organic products, extensive and varied gardens and farms, traditional and conventional festivals and ceremonies, tourists' participation in harvesting and direct farm purchases are other great opportunities based on the view of rural residents. In general, a wide range of factors such as produce diversity,

local customs, employment, resorts and recreational infrastructure are excellent parameters noted as relative advantages and areas for agro-tourism development in rural areas of Tehran Province. The villagers hold a generally positive attitude towards these capacities, which is above average (3) in all respects (see Table 3).

Table 3. Descriptive findings related to opportunities and areas for agro-tourism development
(Source: Research findings, 2019)

Index	Spectrum					Mean
	Vey low	Low	Average	High	Very high	
Expansion of resorts and recreational activities on the farm	2.3	5	23	47.5	22.2	3.82
Weekend vacations on the farms	1.1	3.4	28.7	42.9	23.8	3.85
Development of tourism tours in gardens and villages	1.1	6.1	31.4	37.9	23.4	3.76
Turning gardens into a reception and entertaining salons for tourists	1.1	5.7	29.9	40.6	22.6	3.78
Tourism development with emphasis on medicinal plants	1.9	6.5	29.1	41	21.5	3.74
Expansion of production and sales of local produce and crafts to tourists	1.1	3.1	36.8	37.7	21.5	3.75
Production and sale of organic produce	0.8	4.6	36.8	39.8	18	3.7
Direct sale of produce on the farm and involvement of tourists in the harvest	1.5	7.3	32.6	41.4	17.2	3.66
Organization of ritual festivals and traditional agricultural activities	1.9	4.6	34.5	39.8	19.2	3.7
Holding planting and harvesting festivals	2.3	3.4	33.3	45.6	15.3	3.68
Running environmental and agricultural programs on the farm	2.3	5.4	31.4	44.4	16.5	3.67
Organizing a local festival to revive and reinforce traditional customs	1.5	7.3	33.3	39.8	18	3.66
Setting up workshops on handicraft training for tourists	3.1	9.2	36	36.8	14.9	3.51
Increasing earnings obtained from the sale of produce	1.9	7.3	33	36.4	21.5	3.68
Improving farmers' level of production and income	2.3	4.6	29.9	41	22.2	3.76
Promoting direct and indirect job creation	0.4	3.8	28	36	31.8	3.95
Government aids such as loans and subsidies	1.5	2.7	19.5	34.1	42.1	4.13

4.2. Inferential statistics

In light of the issues raised in the theoretical framework of research, tourism and agricultural activity are the main pillars of the emergence and thriving of agro-tourism in rural areas. The government agencies in charge of villages and rural tourism also play a decisive and facilitating role in shaping agro-tourism activities. Therefore, in the present study, three groups of tourists, locals and tourism experts and authorities were selected as key respondents. In this part of the study, we compared mean responses and discussed the relevance and difference from the expected value using single sample t-test. Findings about opportunities and areas of agro-tourism development in rural areas of Tehran Province with respect to differences in views and prioritization of components between the three groups of villagers, experts and tourists suggest that alpha error was less than 0.05 and the mean responses was distinct from the assumed threshold in all the three groups. In other words, all three groups of respondents agreed on the desirable impact of the components with relative differences and believed that it was above average. Therefore, it can be argued that there is a significant relationship between the components and this value will be acceptable with an error value of 0.000. On the one hand, in the assessment of all the three groups, the effectiveness of measures was desirable; on the other hand, there was a significant and positive relationship between the responses (see Table 4).

Table 4. Mean difference and correlation of the measures for three respondent groups using single sample t test
(Source: Research findings, 2019)

Measures related to opportunities and areas of rural tourism development	Rural residents		Experts		Tourists	
	t	Sig (2-tailed)	t	Sig (2-tailed)	t	Sig (2-tailed)
Expansion of resorts and recreational activities on the farm	14.60	0.00	4	0.00	8.55	0.00
Weekend vacations on the farms	15.84	0.00	5.48	0.00	2.88	0.01
Development of tourism tours in gardens and villages	13.41	0.00	5.76	0.00	9.55	0.00
Changing gardens into a reception and entertaining salons for tourists	13.94	0.00	3.67	0.00	7.65	0.00
Tourism development with emphasis on medicinal plants	12.73	0.00	6.87	0.00	5.41	0.00
Expansion of production and sales of local produce and crafts to tourists	14.02	0.00	6.73	0.00	6.05	0.00
Production and sale of organic produce	13.35	0.00	9.06	0.00	5.88	0.00
Direct sale of produce on the farm and involvement of tourists in the harvest	11.75	0.00	9.52	0.00	7.51	0.00
Organizing ritual festivals and traditional agricultural activities	12.56	0.00	6.64	0.00	5.50	0.00
Holding planting and harvesting festivals	12.87	0.00	7.35	0.00	6.70	0.00
Running environmental and agricultural programs on the farm	12.20	0.00	6	0.00	2.63	0.02
Organizing a local festival to revive and reinforce traditional customs	11.64	0.00	6.82	0.00	2.68	0.00
Setting up workshops on handicraft training for tourists	8.65	0.00	8.28	0.00	4.09	0.00
Increasing earnings obtained from the sale of produce	11.55	0.00	4.88	0.00	6.54	0.00
Improving farmers' level of production and income	13.29	0.00	5.54	0.00	3.29	0.00
Promoting direct and indirect job creation	17.32	0.00	6.87	0.00	3.98	0.00
Government aids such as loans and subsidies	19.75	0.00	3.88	0.00	3.15	0.01

Given the themes and nature of variables under study, 17 indicators are assigned to four basic categories, including infrastructure, direct sales and supply of products, relative and local advantages, employment and income generation. In this way, the difference between means is evaluated and the relationship between the variables is analyzed using chi-square test.

4.2.1. Infrastructure

One of the major factors related to the development of agro-tourism activities is the presence of appropriate infrastructure and the quality of their function. Five indicators of the expansion of on-farm resorts and activities, the development of gardening tourism tours, the conversion of gardens into recreational spaces, setting up handicraft training workshops and using public aids fall under the category of infrastructure. The results revealed that there was a significant difference between the variables so that the value of alpha error in all the items was less than 0.05 and the difference between the sample mean and the expected value was confirmed with a positive chi-square coefficient. As a result, it can be posited that there is a bilateral relationship between the core category of infrastructure, which embraces a range of essential actions by local authorities and residents, and the development and thriving of agro-tourism (see Table 5).

Table 5. Relevance of infrastructure with agro-tourism development using chi-square test
(Source: Research findings, 2019)

Index	Mean	Chi-Square	Asymp sig
Expanding on-farm resorts and recreational activities	3.82	170.897	0.00
Organizing of tourism tours in gardens and villages	3.76	131.931	0.00
Changing gardens into a recreational and entertaining space for tourists	3.78	141.969	0.00
Setting up workshops for training craftsmanship to tourists	3.51	126.222	0.00
Using government aids such as loans and subsidies	4.13	173.617	0.00

4.2.2 Direct sales and supply of produce

The participation of tourists in farming activities and the direct purchase of products and goods is one of the main attractions underscored by tourists with respect to agro-tourism. In the present study, increased level of production and supply of local produce to tourists, production and sale of organic produce and direct purchase of farm products and engagement in harvesting of crops were identified as three key areas and opportunities for agro-tourism development. Chi-square test data showed that there is a relative difference between the items and the expected mean as well as the significant effect of each variable on the development of agro-tourism in the rural areas of Tehran Province to varying degrees. This difference is significant at an error level of 0.000 (see Table 6).

Table 6. Relevance and relationship of the direct sale of produce with Agro-tourism development using chi-square test

(Source: Research findings, 2019)

Index	Mean	Chi-Square	Asymp sig
Increased production and sale of local resources and produce to tourists	3.75	161.011	0.00
Production and sale of organic produce	3.70	167.908	0.00
Direct sales of produce on the farm with the engagement of tourists in harvesting	3.66	146.874	0.00

4.2.3. Comparative local advantages

Given the environmental capabilities, the facilities and services available, and the method of tapping into existing resources and facilities, which often originates from rural livelihoods and cultures, each geographic area has specific potentials and abilities. As a comparative advantage, these capabilities, if exploited correctly and systematically, will not only fuel economic development and employment generation, but also accelerate the development and prosperity of rural life. Weekend vacations on farms, festivals, customs, and agriculture-related activities, and highlighting benefits such as cultivating herbs are among major factors that can be discussed in form of comparative advantages in the rural areas of Tehran Province. The results showed that among the 6 indicators studied, the mean rank was above the average, while the chi-square coefficient was positive in all domains with an alpha error of 0.000, confirming the difference between the mean and the criterion. Each of these areas, relative to their mean rank, have positive effects on Agro-tourism development in rural areas of Tehran province (Table 7).

Table 7. Relevance and relationship of local relative advantages with agro-tourism development using chi-square test

(Source: Research findings, 2019)

Index	Mean	Chi-Square	Asymp sig
Weekend vacations on the farm	3.85	162.429	0.00
Tourism development with emphasis on medicinal herbs	3.74	135.073	0.00
Holding ritual festivals and traditional farming activities	3.70	152.506	0.00
Organizing planting and harvesting festival for the crops	3.68	188.176	0.00
Running environmental and agricultural programs on the farm	3.67	165.456	0.00
Setting up local festivals to revive and strengthen traditional customs	3.66	140.743	0.00

4.2.4. Employment and income generation

It is only reasonable to say that the most important factor and incentive for the development of most startups is the economic benefits and earnings generated for entrepreneurs and business owners. Projects that are successful in employment and income generation will be sustainable.

In this section, revenues of crops sale, elevated production levels and farmers' income and direct and indirect job creation are major parameters of employment and income generation. The findings exhibit that there is a significant difference between the mean of the sample and the expected mean, which displayed a tendency for utility,

positive effect and significance of difference. This evaluation is evident in rank average of items, the chi-square coefficient and the alpha error value of less than 0.05 (see Table 8).

Table 8. Relevance and relationship of employment and income generation with agro-tourism development using chi-square test

(Source: Research findings, 2019)

Index	Mean	Chi-Square	Asymp sig
Revenues derived from the sale of products	3.68	121.050	0.00
Improving farmers' production and income levels	3.76	142.774	0.00
Increasing direct and indirect job creation	3.95	144.268	0.00

This section of the study presents findings obtained after asking the tourists and rural residents open-ended questions. In the view of local residents, government aids in form of financial and administrative support, prohibiting the change of horticultural and agricultural land uses, offering basic infrastructure including transportation, supplying the water required for agriculture by permitting to drill deep and semi-deep wells. Advertising, especially by the rural municipality (Dehyari), guaranteeing the purchase of produce, assisting in the organization of local festivals and export products, among other things, were the major factors contributing to the development of agro-tourism in rural areas. In the following table, the above factors have been described for each village separately.

Table 9. The most important factors of Agro-tourism development in the views of villagers

(Source: Research findings, 2019)

	Village	Most important factors in the development of agricultural tourism in the village
1	Jelizjand	Raising public awareness, financial support, nurturing a positive attitude among local residents, cooperation of government agencies
2	Ziyarat Bala	Government support, encouragement and inspiration by officials, participation of villagers, granting low interest loans, provision of service infrastructure and utilities including water, electricity, gas, etc.
3	Arastou	Assistance of farmers, specifically installing drip irrigation, preventing the alteration of land uses by people other than local residents, government's financial support, informing people about agro-tourism benefits
4	Jurd	Create employment, education and revenues for residents, beautifying and decorating the village by setting up Alachiq (alcove), etc. on busy routes, expanding amenities including settlements and salon gardens
5	Akhtar Abad	Supporting the pistachio growing plan, revival of aqueducts, granting loans to villagers, funding the cultivation of crops in the greenhouse
6	Qajar Takht-e Rustam	Creating employment for women, advertising and other measures taken by Dehyari, tackling water supply problems, precluding the inflow of non-indigenous people who seek to change the land use of gardens, financial support
7	Qajar Abad	Aids by local municipality, holding local festivals and financial support
8	Khomdeh	Constructing parking, restaurants, cafes, informing people, direct sale of farm produce, government aids especially financial support, preventing the change of land use
9	Gale Sabz	The officials' visit from the area, addressing the issue of guarantors required to apply for bank loans, providing training services to set up business startup, tacking water supply problem, the guaranteed purchase of produce
10	Torpaq Tappeh	Resolving the water supply problems, preventing land use change, particularly by non-indigenous people
11	Kelin	The participation of private sector and government, funding the establishment of greenhouses, and insuring farm workers, taking people's demands into account, financial support, promoting drip irrigation
12	Talavand Paein	Government financial support, advertising
13	Ahar	Insurance of crops and produce, government aids to indigenous peoples, facilitating the visit of tourists from rural areas, resolving infrastructure problems such as transportation network

	Village	Most important factors in the development of agricultural tourism in the village
14	Barg Jahan	Government aids, training new cultivation and irrigation methods
15	Lavasan Bozorg	The need to drill deep wells, financial support, preventing unauthorized constructions
16	Lazoor	Tacking accessibility issues, advertising, government financial aids
17	Filestan	Granting long-term loans by the government, financial supports, facilitating the establishment of various businesses
18	Golzar	Supporting the construction of greenhouses by granting loans, and standing behind native residents rather than Afghans
19	Amin Abad	Establishing local markets, financial support, safe and guaranteed purchase of crops, granting financial aids to people rather than Dehyari
20	Alouak	Addressing the main problem of the village, i.e. the inflow of Afghans, supporting agricultural sector especially water supply, greater participation of Dehyari and informing people
21	Dehkheir	Granting Loans and Other Government aids
22	Yusof Reza	Government Support, Advertising and raising awareness

According to the tourists' views, the critical factors attracting tourists are accessibility to a paved road, hospitality of villagers, closeness to city and availability of amenities, and infrastructure and utilities in the tourist area. Respondents assigned the highest priority to security in the agro-tourism destination villages followed by proper settlement, health infrastructure, restaurants, tourism tours, Internet access, as the most important demands of tourists.

To examine the disparity of views between female and male officials and experts in relation to the impact of government support plans and private companies, demand-driven research in agro-tourism, entrepreneurs' linkage with producers, intermediaries and consumers, the awareness of local residents and access of farmers to financial resources for investment in agro-tourism, the Mann Whitney test was used. According to the findings, in none of the above measures, a discrepancy of opinions was observed among male and female respondents. In other words, the mean difference of responses was not significantly different, and the value of Mann-Whitney coefficient was positive for all the variables. Moreover, the significance level (sig=0.05) for all indicators was higher than expected (see Tables 10 and 11).

Table 10. Relevance and differences of respondents' views in different educational groups based on Mann-Whitney test
(Source: Research findings, 2019)

Gender	N	Mean Rank	Mean Rank	Mean Rank	Mean Rank	Mean Rank	Mean Rank
		Government incentives plans	Support of private sector	Adequate and demand-driven research in the field of tourism	Connection of entrepreneurs with producers, etc.	Increasing awareness of farmers	Access to financial resources for investment
Men	22	15.86	15.11	14.66	16.41	15.14	14.98
Women	9	16.33	18.17	19.28	15	18.11	18.50
Total	31	-	-	-	-	-	-

Table 11. Results of Kruskal-Wallis test on the disparity of views in different educational groups
(Source: Research findings, 2019)

Test Statistics	Access to financial resources for investment	Increasing awareness of farmers	Connection of entrepreneurs with producers, etc.	Adequate and demand-driven research in the field of tourism	Support of private sector	Government incentives plans
Mann-Whitney U	96	79.5	69.5	90	80	76.5
Wilcoxon W	349	332.5	322.5	135	333	329.5
Z	-0.138	-0.899	-1.368	-0.413	-0.878	-1.026
Asymp. Sig. 2 tai.	0.891	0.369	0.171	0.679	0.380	0.305
Exact Sig. 2*	0.915[b]	0.403[b]	0.203[b]	0.716[b]	0.428[b]	0.334[b]

5. Discussion and Conclusion

Agro-tourism as an emerging form of rural tourism encompasses a wide range of new services offered to tourists along with a variety of socio-economic benefits generated for residents and entrepreneurs in this sphere of tourism. These benefits are only realized when villagers have the right understanding of farm-based agro-tourism and the prerequisites of tourism including infrastructure services are provided. In this respect, the present study aimed to explore opportunities and areas of agro-tourism development in the rural areas of Tehran Province through a survey of three groups of local residents, tourists and tourism officials using a questionnaire and interviews.

According to the findings, the main areas and opportunities for the development of tourism in Tehran Province include fulfilling the financial needs of villagers and farmers by granting long-term loans and banking facilities, cooperating with relevant agencies to issue permits for utilities and businesses, preventing the change of agricultural and horticultural land uses and supplying water required for agriculture by facilitating the permitting the drill of deep and semi-deep wells. Moreover, the participation of the private sector and local residents in various dimensions, including investment in infrastructure such as settlements, holding festivals and ceremonies related to planting and harvesting of certain products, along with the involvement of tourists in the harvesting process as well as direct purchase of produce on farms, marketing, advertising and the guaranteed purchase of produce made by start-ups in the field of agriculture are also some of major opportunities for expansion of tourism.

Given the geographical vastness and climatic and natural diversity of the villages of Tehran Province, along with numerous historical and archaeological sites in some villages, the cultivation of medicinal herbs, greenhouse farming, handicrafts, the supply of livestock products, growing flower and building garden halls and salons for weekend holidays on farms are among the most important rural capacities and potentials of this province, which are the local comparative advantages for the development of agro-tourism. Findings also suggest that all three groups of respondents hold a positive attitude of the mentioned variables, stressing the favorable impact of the existing opportunities for rural tourism development in Tehran Province. Therefore, if the destination villages are accurately identified, the tourism plan for each product is formulated, and the necessary infrastructure such as access roads and accommodation are provided, agricultural tourism can be promoted. Also, business development in this area can also contribute to the prosperity and stay of people in rural areas.

According to the findings, the three groups of respondents did not vary significantly with regard to the desirable effect of designated indicators on agricultural tourism development in the rural areas of Tehran Province, and there was a consensus on the effective role of these variables in agricultural tourism development.

In this study, we assessed four core variables of infrastructure, sales and direct supply of produce, local comparative advantages, and employment and income generation in the context in the form of 17 indicators, including government financial support of businesses related to agro-tourism, the visit of tourists from farms, holding local festivals, increasing employment and revenues as the top priorities and major opportunities of agro-tourism development. These findings align well with those reported by Lago (2017), Najarzadeh and Torabi (2017), Samani Qotbabadi et al (2017), and Bouzarjomehri et al. (2017). The aforementioned studies stress the role of the government in providing financial and educational services, organizing festivals, and developing a comprehensive agricultural tourism plan.

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بازنمایی فرصت‌ها و زمینه‌های توسعه گردشگری کشاورزی در مناطق روستایی (مطالعهٔ موردی: روستاهای استان تهران)

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چکیده مبسوط

۱. مقدمه

امروزه کشاورزی صرف و پرداختن به فعالیت های سنتی آن نمی تواند جوابگوی نیازهای جوامع روستایی باشد. در این راستا گردشگری کشاورزی از جمله راهبردهایی است که برای متنوع ساختن و توسعه پایدار روستایی مدنظر قرار گرفته است. گردشگری کشاورزی به عنوان زیرمجموعه گردشگری روستایی به مسئولیت پذیری و کسب منفعت جامعه محلی اشاره داشته و می تواند از طریق تحریک و تشویق روستاییان به عرضه محصولات و خدمات بخش کشاورزی به گردشگران، مانند بهره مندی از چشم انداز اراضی کشاورزی، تورهای مزرعه و آماده سازی سایت ها در جوار قطعات زراعی جهت گذران اوقات فراغت، سبب رونق بخش کشاورزی شود. در نقاط روستایی استان تهران به رغم برخورداری از همه منابع و توان های موجود، از یک سو کسب و کارهای مبتنی بر گردشگری کشاورزی از وسعت و رونق کافی برخوردار نبوده و از سوی دیگر، مردم محلی نسبت به مزیت‌های نسبی گردشگری کشاورزی اطلاعات اندکی دارند. پژوهش حاضر در پی پاسخگویی به این سوال است که چه فرصت ها و زمینه هایی برای توسعه گردشگری کشاورزی در مناطق روستایی استان تهران وجود دارد؟

۲. مبانی نظری تحقیق

گردشگری کشاورزی از اشکال مهم گردشگری است که می تواند در مسیر توسعه روستایی و کشاورزی نقش ایفا نماید. این نوع گردشگری ضمن ایجاد فرصت های شغلی در مناطق روستایی، می تواند برای گردشگران، تجربه گردشگری مزرعه محور فراهم نموده و به عنوان فعالیت مکمل کشاورزی منجر به احیای اقتصاد بیمار در نواحی روستایی خواهد شد. با توجه به بررسی پیشینه مطالعات صورت گرفته و ادبیات مفهومی گردشگری کشاورزی، به طور کلی می توان به ۵ رویکرد مجزا در رابطه با توسعه فعالیت ها، زمینه ها و فرصت ها و مزایای توسعه گردشگری کشاورزی با عنوان رویکرد برافزایی، منفعت و فایده، اجتماع محور، تفریحی و تلفیقی اشاره نمود. با توجه به نوع نگاه و ویژگی های رویکرد تلفیقی به گردشگری کشاورزی که ترکیبی از دیدگاه های مطرح شده می باشد، این دیدگاه به عنوان رویکرد غالب تحقیق حاضر در نظر گرفته شده و معیارها و روشناسی تحقیق نیز بر همین رویکرد استوار خواهد بود.

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۳. روش تحقیق

پژوهش حاضر از نوع کاربردی بوده و به شیوه توصیفی- تحلیلی انجام شده است. گردآوری داده‌ها به دو شیوه اسنادی و غالبا پیمایشی صورت گرفته و جامعهٔ آماری این پژوهش، شامل سه گروه مسئولین مرتبط با توسعه روستایی در استان، مردم محلی و گردشگران نقاط روستایی ۸ شهرستان دماوند، فیروزکوه، شمیرانات، پیشوا، پاکدشت، شهریار، ملارد و ری واقع در استان تهران می‌باشند که از هر شهرستان، تعداد سه روستا به عنوان نمونه انتخاب ش د. تجزیه و تحلیل آماری در این پژوهش با استفاده از مجموعه ای از روش های آمار توصیفی و استباطی(آزمون t تک نمونه‌ای، کای اسکوئر و من ویتنی) و بر اساس خروجی نرم افزارهای SPSS انجام شد و در نهایت مهم ترین اولویت های موثر بر توسعه گردشگری کشاورزی در مناطق روستایی استان تهران شناسایی و تبیین شد.

۴. یافته های تحقیق

یافته ها نشان می‌دهد که تفاوت معناداری بین متغیرهای بعد زیرساخت وجود دارد به طوری که مقدار خطای آلفا در همه گزینه‌ها کمتر از ۰/۰۵ بوده و تفاوت و ارتباط بین میانگین نمونه و مقدار مورد انتظار با ضریب مثبت خی دو قابل تایید می‌باشد. در نتیجه می توان گفت که بین مقوله هسته‌ای زیرساخت، که طیفی از اقدامات ضروری از سوی مسئولین و ساکنین محلی را شامل می‌شود و درجه توسعه و رونق گردشگری کشاورزی ارتباط دوسویه‌ای وجود دارد. در رابطه با فروش و عرضه مستقیم تولیدات، داده‌های حاصل از آزمون کای اسکوئر نشان‌دهنده وجود تفاوت نسبی بین گزینه‌ها و میانگین مورد انتظار و تاثیر قابل توجه هر متغیر در توسعه گردشگری کشاورزی مناطق روستایی استان تهران با تفاوت‌های نسبی می‌باشد. این تفاوت در سطح خطای ۰/۰۰۰ معنی‌دار است. شکل‌گیری تعطیلات آخر هفته در مزرعه، برگزاری جشنواره ها، آداب و رسوم و برنامه های مرتبط با فعالیت های بخش کشاورزی و توجه به مزیت هایی همچون قابلیت کشت گیاهان دارویی از مهم‌ترین مولفه‌هایی است که در قالب مزیت های نسبی محلی در مناطق روستایی استان تهران مورد بحث قرار گرفت. نتایج نشان می‌دهد که در ۶ مولفه مورد بررسی، میانگین رتبه‌ای بالاتر از حد متوسط بوده و ضریب کای اسکوئر در تمامی زمینه ها مثبت بوده که مقدار خطای آلفای ۰/۰۰۰ تاییدی بر اختلاف از میانگین و معیار مورد نظر بوده و هر یک از زمینه ها به نسبت میانگین رتبه ای به دست آمده دارای اثرات مثبتی در توسعه گردشگری کشاورزی مناطق روستایی استان تهران می باشند. در رابطه با اشتغال زایی و درآمد، مولفه های میزان پس انداز حاصل از فروش محصولات، ارتقاء سطح تولید و درآمد کشاورزان و میزان ایجاد اشتغال مستقیم و غیر مستقیم به عنوان مهم ترین سنجه های اشتغال زایی و درآمد مطرح می باشند. یافته ها نشان می‌دهد که تفاوت معناداری بین میانگین نمونه های مورد بررسی و میانگین مورد انتظار وجود داشته که گرایش آن به سمت مطلوبیت، اثرگذاری مثبت و معناداری تفاوت هاست.

۵. بحث و نتیجه گیری

با توجه به گستره جغرافیایی و تنوع اقلیمی و طبیعی روستاهای استان تهران، همچنین وجود آثار تاریخی و باستانی در برخی روستاها، کشت گیاهان دارویی، کشت گلخانه ای، تولید صنایع دستی، عرضه فرآورده های دامی، پرورش گل، وجود باغ تالارها و برگزاری تعطیلات آخر هفته در مزارع از توانمندی ها و پتانسیل های شاخص روستاهای استان و مزیت های نسبی محلی جهت توسعه کسب و کارهای مبتنی بر گردشگری کشاورزی می باشند. یافته ها نشان می دهد که هر سه گروه پاسخ دهنده، نسبت به متغیرهای مطرح شده دیدگاه مثبتی داشته و بر اثرگذاری مطلوب فرصت های موجود بر توسعه گردشگری کشاورزی روستاهای استان تهران تاکید نموده اند. بنابراین می توان گفت که در صورت شناسایی صحیح روستاهای هدف و تهیه و تدوین برنامه گردشگری هر محصول یا فرصت و فراهم نمودن زیرساخت های ضروری از جمله شبکه دسترسی و اقامتگاه، علاوه بر رونق گردشگری کشاورزی و توسعه کسب و کارهای این حوزه، آبادانی و ماندگاری جمعیت در روستاها صورت خواهد گرفت.

کلمات کلیدی: گردشگری، گردشگری روستایی، گردشگری کشاورزی، روستاهای استان تهران.

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Spatial Analysis of Rural Settlements Development Using Sustainable Development Approach (Case Study: Villages of Khorramabad County)

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Abstract

Purpose - Spatial equilibrium at different stages, especially at the district level, is the most significant purpose of spatial development planning that is the focus of attention in Iran's policy and planning system. In this regard, spatial recognition and analysis of the components and the criteria of eligibility are significant in the context of the existing development concept. By identifying the eligibility components of rural settlements, it is possible to identify low eligibility of spatial areas affected by adverse socio-economic and spatial processes. Accordingly, the research team attempted to examine this criterion in the district of Khorramabad.

Design/methodology/approach - The research method was descriptive-analytical. The statistical population was the villages of Khorramabad county (Given the frequency of a statistical population, 150 villages out of 647 were selected as the sample using stratified- random sampling. The required data (35 indices) were collected by the library method (using population and housing census and statistical yearbook of 2016). Data analysis was done using FANP model (for summarizing the indices and determining their weight), VIKOR technique (for ranking the villages), and finally, path analysis test for determining the influence degree of the factors on the level of development. According to the research findings, the following results were obtained;

Finding - The process of development in Khorramabad county, is in relatively in good condition. In this process, Integrated development has not been considered. Some components (access to services, economic participation and, economic welfare) are in good conditions while some other components (agricultural production, education and population growth) are not. These conditions resulted in a decline in some villages. The level of development in Khorramabad county has been confronted with spatial inequality not just in terms of topic-specific but an area-specific aspect. This inequality resulted in the formation of the center-periphery spatial pattern that causes the marginalization (and deterioration) of disadvantaged villages.

Key words - Spatial analysis, Rural settlement development, Sustainable development approach, Khorramabad County.
Paper type- Scientific & Research.

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1. Introduction

Balanced and equal development of the regions is a significant prerequisite to achieving economic stability and integrated development. Regional inequalities in many countries, as a major challenge facing development, have created a structural imbalance and has imposed consequences on factors such as immigration, unemployment, poverty, increase of the crime, regional and ethnic discontent, rural eviction and marginalization, security problems, divergence of marginal areas, etc. (Afrakhteh, Riyahi & Javan, 2015). In this way, the existence of quantitative and qualitative inequalities between urban and rural areas and their deteriorations in recent decades have seriously required to solve the problem and to adjust inequalities. The paradox between the qualitative aspects of living in cities and villages and the relocation and emigration of the rural groups to cities in the hope of enjoying more diverse and convenient facilities, not only in the rural areas but also in the urban areas have caused numerous problems (Saeedi, 2010).

The effectiveness of any planning for rural areas development and the reduction of inequalities depends on identifying these areas in terms of their status quo and the level of development, exploring local and regional differences in terms of development, explaining the effective factors in development, and finally trying to solve the problems and providing the requirements to address the existing inequalities in the form of a coherent and integrated housing system (Pourjafar, Mahmoodinejad, Ilka Shahin, & Aghebat Bekheir, 2012). Using environmental, socio-cultural, economic, and physical indices can provide a good basis for locating the districts as well as resolving their problems to reach economic well-being and social health and; therefore, to achieve development (Maleki, Mokhtari & Taheri Keshtkar, 2017).

The rural development and its conceptual and operational definition have been affected by paradigm shifts from the past to the present and have always been changing. From the 50s on, rural development was affected by the view of classical, neoclassical, structuralist, post-structuralist sociologists, etc. from a single area to an integrated one. In recent decades, the sustainable development approach focusing on the principle of environmental protection has developed a new direction for policymakers and planners. The key point of this view is the focus on human-centered rather than the technical-oriented aspect. From this perspective "Sustainable development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission, 1987). In this regard, rural areas have different conditions. Some districts are in balance regarding the respect for life principles and some of or most of them have unstable conditions in terms of different capitals including natural capital. Studies have shown that some villages on the periphery are in a state of decline and destruction.

The rural district of Khorramabad county is one of the areas where the conditions are unsuitable in terms of the sustainable development approach. Divergence in development in the rural areas has caused an obvious gap between rural settlements and urban areas in this county. However, this divergence can be seen in rural areas as well. The villages near Khorramabad county have better conditions than the villages surrounding this county. However, this is a relative nature. Because some of the villages near the city are facing environmental and social problems. Initial exploratory studies have shown that rural areas of the county have suffered from damages such as the exit withdrawal of active labour forces, the economic stagnation, the disruption of the age and sex structure of the population, the destruction of vegetation, overexploitation of water and soil resources, and so on. As a result, there is no clear perspective for the villages of Khorramabad county.

Accordingly, due to the vital role of rural settlements in territorial development, the present study seeks to identify the key and effective indicators of sustainable development based on the sustainable development approach, related literature review and global experiences in a systematic framework. While measuring the level of development, a spatial analysis of the development level in Khorramabad county provides the basis for planning. In this regard, this study tries to respond to the following key questions:

- what is the level of sustainability in the villages of Khorramabad county based on sustainable development components?

- What are the differences and similarities between the villages based on the final Index of sustainable development?
- What are the factors affecting the final index of sustainable development?

2. Research Theoretical Literature

Different views and theories have been proposed concerning the development including the quality of life approach, social exchange, integrated development, and sustainable development. In this study, the focus is on the sustainable development framework. Nowadays, the sustainable development approach as a framework for analyzing the sustainability of the human settlements system in general and rural settlements in particular has a high value. The concept of sustainable development consists of subjects such as the empowerment of the very poor people, the idea of the self-reliant- development, the idea of cost-effective development, health control, appropriate technology, food independence, healthy water, and housing for all**.** Sustainable Development is a concept in which people's initiative is needed and human well-being is incorporated (Yarihesar, Badri, Pourtaheri & Faraji, 2013). Sustainable development ensures the improvement of the quality of life in all aspects by applying the four principles of "Integrity, equality, adaptation, and the acceptance of limitations" (Bond, 2001). According to development experts, "Sustainable developmen is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Indeed, sustainable development is a combination of two important terms of sustainability which stands for durability, and development, the idea of the development of abilities and talents (Duran, Gogan, Artene & Duran, 2015). The European Union believes that in addition to addressing the realization of economic, social, physical and spatial development, support, and improvement of environmental conditions is critical to meet the needs of present and future generations. Balance is a factor that can and should ensure the the development of society as a whole (Glasbergen, 2004).

Sustainable development takes place when alongside the economic growth, the productivity and employment (economic rationality), meeting the basic needs of society, self-reliance, participation and equality (social desirability), ecological capacities, biodiversity and natural resources (ecological acceptability) are reserved. Summing up the various definitions and concepts of sustainable development shows that sustainable development is not a fixed and static concept but a continuous and evolving movement of adaptation in which the utilization of the resources for the investments and the orientation of technology development and orientations for the development of technology are designed to meet the potential and actual needs of human beings. This concept is human-centered approach and includes all aspects of human life (Dixon, 2003).

Sustainable rural development is a kind of development that tries to alleviate the pressures and establish a sustainable economic, social, physical-spatial, and environmental system in the rural areas by considering the dramatic developments in these regions. The most important developments are sustainable agricultural development, sustainable rural institutions, public participation, the creation of empowering environments, paying attention to the role of women in development, and more emphasis on environmental considerations (Ahmad Beigi, 2009). Rural development involves sustainable social, economic, and environmental changes designed to increase long-term well-fare throughout the society (Dobie, 2004). In many countries, rural development is a significant issue for achieving sustainable development in balance with urban society (Sakurai, 2006). The realization of such development calls for changes in the institutional, technical, personality, and value structures that causes fundamental changes in the social structure and personality traits of the villagers. The outcome should meet the basic needs of the villagers to enhance the quality of life, and to enhance the self-reliance and freedom of choice and action of the villagers (Azkia, & Dibaji Faroushani, 2016).

In view of the above, the definition of sustainable rural development is as follows: Sustainable Rural Development is a comprehensive, balanced and endogenous process whereby the ability of rural communities to supply material and spiritual basic needs and effectively control the forces shaping the local housing system (ecological, social, economic, physical, spatial, institutional, and territorial) Grows and excels (Rokneddin Eftekhari & Aghayari Hir, 2007).

Development is the emerging phenomenon of the twentieth century that began in 1917 in the Soviet

Union (Lehtonen, 2004). In the 1950s and 1960s, development meant economic growth, and industrialization was a key feature of development. In 1970, the traditional view of rural development, which was influenced by economic growth theory, changed the content and the political and social issues entered the development debate. (Roldán & Valdés, 2002). In the 1980s, the spatial aspect in the planning became important. The mission of spatial planning was achieving social justice according to equitable access and spatial distribution of the development achievements establishing and strengthening links and establishing spatial integration. Since the 1990s, development debates entered the sustainable development approach. Sustainable development is the management of decent utilization of resources along with meeting the needs of the current and future generations.

In this regard, the literature review of this study follows two approaches: spatial development and sustainable development.

The following studies have been conducted on the spatial planning approach:

Saeedirad, Rahmani, Manshizadeh & Jalali (2014) in analyzing the level of rural settlements around the city of Astrynan, concluded that: Inaccessibility of services and Unsuitable distribution of services and infrastructure at the villages of around the Astrynan cityare affected by internal and external forces. These factors have hampered the proper Rural Development process and as well as having a regular hierarchical network in the area. Zarei (2016) in the spatial analysis of development indices in the rural areas of Dashtestan county has concluded that the balanced development of rural areas of Dashtestan county needs the revision of resource allocation and the equal distribution of opportunities with spatial planning approach in deprived areas. Maleki et al. (2017) measured the level of rural development in Kermanshah rural districts. The results show that there is a significant gap between Kermanshah rural districts in terms of development level. As such, rural districts of Doroud Faraman, Razavar, and Miyandarband have the highest level of development in Kermanshah County in terms of selected indexes and Haft Ashiyan and Osmanvand have the lowest level of development among the 13 rural district of Kermanshah county.

Some studies have been conducted using a sustainable development approach, the most important of which are mentioned below. Riyahi, Azizpour & Nouri (2016), who analyzed the environmental sustainability level of rural settlements in Khorramdareh county, concluded that environmental sustainability in the area under study was at a semi optimal level. Among the various dimensions affecting environmental sustainability are the physical dimensions with the highest effect and the economic, social, and environmental dimensions, respectively.

Ziaian, Firouzabadi Anvari& Velaei (2015) in a study on ranking the development of rural areas in Marhamat Abad district of Miandoab county concluded that due to the inequality in the level of development of rural areas of Marhamat Abad district, it is necessary to adopt relevant programs on balanced development.

Rokneddin, Eftekhari & Aghayari Hir (2007) studied the classification of sustainability of rural development in Hir district. The results showed an unfavorable situation of sustainability in the study area. The development in this area is such that most of the settlements are in the middle class. Concerning the factors affecting sustainable development, statistical analysis on the five factors of the natural situation, distance to the center of Bakhsh (district), population, employment, and literacy revealed that the factor of the natural situation and the population of villages have the highest correlation with the sustainability of rural development.

In this research, based on the theoretical framework of sustainable development, the rural development system of Khorramabad county has been evaluated. This has not been examined in the geographical area under study. Due to a comprehensive look at evaluating the level of development, evaluating the factors affecting development, and using the Structural Equation Modeling (SEM) this study is somewhat different from other research in this regard.

Table 1. Summary of literature review
(Source: Research findings, 2019)

Approaches	Attributes. Principles	Researchers
Spatial Development	-Integrity -Regional balance -Proper distribution of activities -Maximum use of capabilities	Saeedirad et al (2014); Zarei (2016); Maleki et al (2016); Ebrahimzadeh, Mousavi & Kazemizad (2012); Firoozi, Mohamadi Dehcheshmeh & Mokhtari Cholcheh (2015); Kalantari, Irvani & Vafaiejnejad (2003); Teymouri, Shakoor & Gandomkar (2016); Taghvaei & Saboori (2011); Hekmatnia & Mousavi (2013); Yu, Zhang, Sun & Huang. (2009); Madu (2006); Salvati, Venanzoni & Carlucci. (2016); Antonescu (2012).
Sustainable Development	- Variety -Compatibility -Effectiveness -Equality -responsibility -Ecological balance -Economic balance -Social balance -Physical-spatial balance	Ziaeian et al. (2015), Beig Mohammadi & Azadi (2014), Eftekhari and Aghayari Hear (2007), Khosrobeigi, Shayan, Sojasi Qeidari & Sadeghloo (2011), Kaboudvand, Miedamadi, Farajolah Hoseini & Paseban (2014), Yarihesar et al. (2011), Amanpour, Mokhtari Chelcheh, Hosseini Kohnouj & Veisi (2015), Rahmani Fazli, Darvishi, Bigham & Biranvandzadeh (2014), Rezvani & Sahneh (2012), Shayan, Ghanbari & Bazrafshan. (2016), Seminova et al. (2016), YIlmaz, Dasdemir, Atmis & Lise (2010), Roldan & Valdez (2002); Groninger, Ruffner & Walters (2013)

In the present study, according to the theoretical basis and the principles, criteria, goals, components, indices of rural sustainable development, and finally considering the characteristics of sustainable systems (economic, social, environmental, physical, spatial sustainability, and so on) a conceptual model can be presented to explain and analyze the spatial measurement of rural development. Designed with the rural development approach, this model has been used as a framework for developing research components and indices (Figure 1).

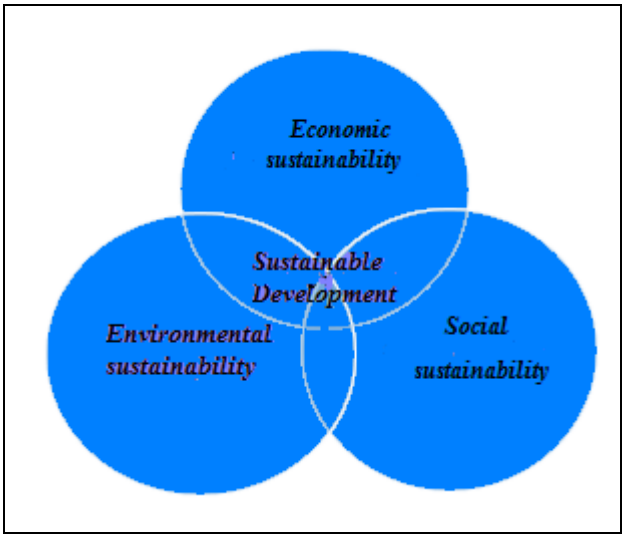

Figure 1. Conceptual model of research
(Source: Research findings, 2019)

3. Research Methodology

3.1. Geographical Scope of the Research

Khorramabad county with a mathematical position of longitude 48 degrees and 22 minutes and latitude of 33 degrees and 29 minutes at an elevation of 1171 meters is investigated. This city runs from north to Nurabad, south to Poldokhtar, west to Kuhdasht and east to Borujerd with 4 districts and 17 rural districts. According to the Census of 2016, the population of Khorram Abad county was 506471. Khorramabad county has a moderately

arid and temperate central climate. The most prominent feature is the temperate climate, the reduction of annual temperature differences, and the occurrence of frost. The major economic activity of the villagers is agriculture and animal husbandry.

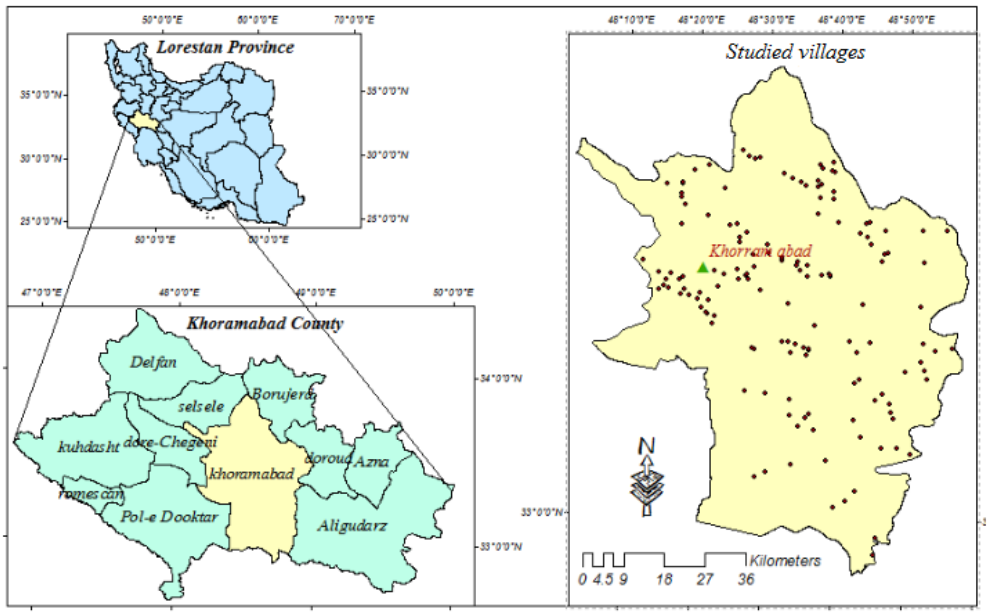

Figure 2. Location of the study area
(Source: Research findings, 2019)

3.2. Methodology

The methodology of the study is quantitative based on deductive reasoning. The type of research method is data processing and its purpose is practical. The statistical population consisted of the villagers of Khorramabad county. Considering the extent of the study area and the high frequency of villages (including 647 inhabited villages), 20% of the villages (equal to 150 villages) were determined according to the estimated method (based on a survey of the sample size of similar surveys). Considering the spatial differences, a stratified random sampling method was used to select the samples. Firstly, according to the geomorphologic factors, the villages were classified into three categories: mountainous, downhill, and lowland. Secondly, in each geomorphologic area and based on the population, the villages were classified into three categories: large, medium, and small. Finally, according to the ratio of villages based on the considered criteria the number of villages was determined and selected by random sampling.

Table 2. Number of villages under study
(Source: Research findings, 2019)

Village's situation	Total	Number of sample villages	Number of villages with high population	Number of sample villages	Number of villages with medium population	Number of sample villages	The number of villages with a population less	Number of sample villages
lowland	153	36	52	12	73	17	28	7
downhill	168	39	61	14	75	17	32	8
mountainous	326	75	141	32	149	34	36	9
Total	647	150	254	58	297	68	96	24

Thirty-five objective indices were used from the statistical yearbook population and housing census of 2016 to study the development of rural settlements in Khorramabad county.
The process of selecting these indices was as follows:
A) by studying internal and external studies in the field of rural development, the indices in these studies were extracted and evaluated from the experts' perspective.
B) among the selected indices, some were excluded from the study due to their being inaccessible and inadequate data at the villages under study.
C) Finally, 35 indices were selected (Table 3).

Table 3. Indicators studied

(Sources: Hekmatnia and Mousavi (2013), Ziaian et al. (2015), Beig Mohammadi & Azadi (2014), Roknoddin Eftekhari and Aghayari Hir (2007), Amanpour et al (2015), Rahmani Fazli et al (2012), Teymouri and Et al. (2016), Rezvani & Sahneh (2012), Seminova et al. (2016); YIlmaz et al. (2010); Yu et al., (2009); Pichs, Swart, Leary Ormond (2000))

Dimensions	Index
environmental	ratio of cultivated land to total land- Per capita water lands- Per capita dryland - Per capita garden land- Per capita gardens and landscapes- Livestock per capita- Percentage of villages with landfill-Percentage of the population access to sewage network-Percentage of settlements with the sanitary waste collection method
social	Family size-Growth rate -total literacy rate-Literacy rate for women- Access to electricity network-Gas network -Sanitary water supply network -Access to training centers -Access to cultural centers - Access to sports centers -Access to office centers -Access to religious centers - Access to political centers -Access to service centers -Access to communication centers -Access to health centers -Access to business centers
Economical	Activity rate- Dependency Ratio- unemployment rate- Per capita land -Agricultural employment rate- Industry employment rate- Service employment rate- ratio of housing to total households- Ratio of durable housing to total housing

The data were obtained by a documentary method using the General Census of Population and Housing and Statistical Yearbook of Lorestan, 2016. The following techniques were used to analyze the data:
A) FANP model: This model was used to summarize the indices and to determine their weight. The following process was implemented within the framework of the model:
A-1) as the first step, the factor analysis model was used to summarize the indices and transform them into factors. To this end, Lisrel was used to run the model;
A-2) In the second step based on the goals the weight of each index was extracted using ANP model. Matlab software was used due to the necessity of forming a matrix.
B) VIKOR model: This model is used for ranking and classifying the villages according to the development indices.
C) Path Analysis Test: Lisrel software environment test was used to measure the effect of each factor on the final index of rural development.

4. Research Findings

4.1. Determining the development level of rural settlements

Using factor analysis, 35 indices were reduced to 6 final factors that explained 68.26% of the total variance. Figure 2 shows the factor loadings for each of the indices. Factor loading is a value between one and zero that shows the strength of the relationship between the factor (latent variable) and the observable one. If the factor loading is less than 0.3, the items are not valuable and should be deleted. If the factor loading is between 0.3 and 0.6, it is acceptable while being greater than 0.6. it is very valuable. Figure (2) and Table (4) show the factor loadings obtained for each of the indices.

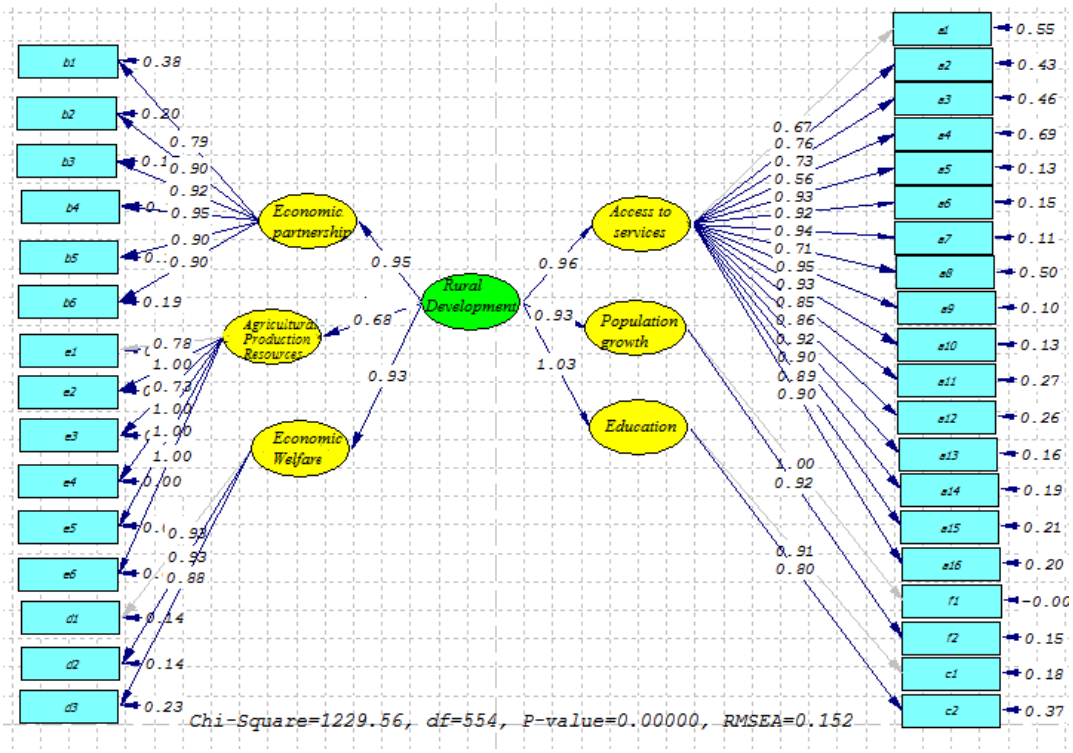

Figure 3. Factor analysis in standard coefficients mode
(Source: Research findings, 2019)

Table 4. Factors Extracted by the Amount Factor Loading and Percentage of Variation by Each Factor
Bartietts= 2965.476 KMO= 0.820
(Source: Research findings, 2019)

index	Factor loading	Percentage of variance change by each factor	Factor
Access to training centers	0.667	26.38	Access to service centers
Access to cultural centers	0.766		
Access to sports centers	0.733		
Access to office centers	0.561		
Access to political centers	0.936		
Access to health centers	0.922		
Access to service centers	0.942		
Access to business centers	0.711		
Access to communication centers	0.956		
Access to religious centers	0.933		
Access to the gas network	0.851		
Access to the sanitary water network	0.861		
Access to electricity network Access to the landfill,	0.923		
Access to the sewer network,	0.902		
Access to sanitary waste collection	0.892		
	0.901		
unemployment rate	0.791	14.16	Economic partnership
Activity rate	0.903		
Dependency Ratio	0.924		
Agricultural employment rate	0.951		
Industry employment rate	0.905		
Service employment rate	0.909		

index	Factor loading	Percentage of variance change by each factor	Factor
Livestock per capita The ratio of housing to total households Ratio of durable housing to total housing	0.885 0.932 0.933	10.22	Economic Welfare
family size Growth rate	1 0.921	3.12	Population growth
Total literacy rate Literacy rate for women	0.912 0.806	5.76	Education
The ratio of cultivated land to total land Per capita gardens and landscapes Per capita land Per capita water lands Per capita dryland Per capita gardens	0.781 1 0.730 1 1 1	8.62	Agricultural production resources

Figure 3 shows the value of t- statistics. The confidence level of factor loadings is examined using *t*-test. If *t*-statistic is outside the range -1.96 to +1.96, the model is significant, which shows that all factor loadings are significant at the confidence level of 0.95. The calculated *t*-value for each of the indices is greater than 1.96 and , thus, the factor loadings at 0.95 is significant. Moreover, calculated *t*-values for each of the factor loadings of latent variables (access to services, population growth, education, economic welfare, agricultural production resources, and economic participation) are above 1.96. Therefore, it is possible to show the convergence of the studied indices for measuring the concepts at this valid stage.

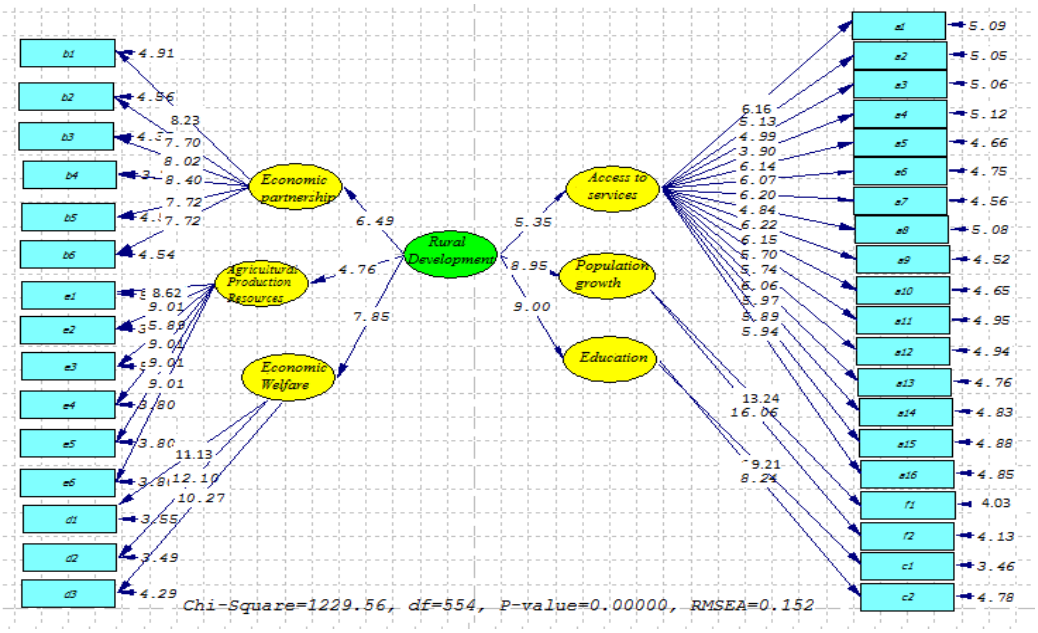

Figure 4. Factor Analysis in a Significant State (t-value)
(Source: Research findings, 2019)

Then, in the framework of FANP model, the factors extracted from factor analysis and their indices were analyzed using ANP model and their final weight was calculated according to Table 5.

Table 5. Final weight of the studied indices
(Source: Research findings, 2019)

index	Significance factor	Final weight	Percentage	Index	Significance factor	Final weight	Percentage
family size	0.0148	0.0149	1.48	unemployment rate	0.0288	0.0289	2.89
Access to the sanitary water network	0.0149	0.0149	1.49	Access to gas	0.0291	0.0292	2.91
Activity rate	0.0152	0.0153	1.52	Access to sanitary waste collection	0.0301	0.0302	3.01
Access to electricity network	0.0155	0.0155	1.55	Per capita garden land	0.0316	0.0317	3.16
Industry employment rate	0.0157	0.0158	1.57	Percentage of women literacy	0.0322	0.0322	3.22
Access to religious centers	0.0169	0.0169	1.69	Percentage of total literacy	0.0341	0.0342	3.41
Access to cultural centers	0.0178	0.0179	1.78	Per capita dry land	0.0351	0.0351	3.51
Dependency Ratio	0.0179	0.0179	1.79	Percentage of service employees	0.0374	0.0374	3.74
Access to service centers	0.0181	0.0182	1.81	Ratio of cultivated land to total land	0.0389	0.0390	3.89
Access to communication centers	0.0188	0.0189	1.88	per capita Livestock	0.0402	0.0403	4.02
Access to business centers	0.0192	0.0192	1.92	Per capita watery lands	0.0428	0.0428	4.28
Access to the landfill	0.0195	0.0196	1.96	Percentage of agricultural workers	0.0432	0.0433	4.32
Access to political centers	0.0211	0.0211	2.11	Ratio of durable housing to total housing	0.0438	0.0439	4.38
Access to training centers	0.0225	0.0226	2.25	Ratio of residential unit to household	0.0441	0.0442	4.41
Access to Centers of Excellence	0.0231	0.0232	2.31	Per capita gardens and landscapes	0.0444	0.0444	4.44
Access to the sewer network,	0.0266	0.0266	2.66	Growth rate	0.0452	0.0452	4.52
Access to sports centers	0.0268	0.0269	2.68	Per capita arable land	0.0453	0.0454	4.53
	0.0272	0.0272	2.72	total	1	0.99	100

Then, each of the indices was integrated after gaining the final weight. VIKOR technique was used to integrate and rank the villages under study. The results of this ranking are presented in Table 6.

Table 6. Ranking of villages using the VIKOR technique
(Source: Research findings, 2019)

Name of the village	Index Q	Rank	Name of the village	Index Q	Rank	Name of the village	Index Q	Rank	Name of the village	Index Q	Rank
Masur	0.012	1	Dare Bijan	0.047	41	Khalilan Paien	0.057	81	vardahdeh	0.070	121
Dehmohsen	0.012	2	Kavekali	0.047	42	Charkhestane	0.057	82	Seiednar	0.071	122
Darai	0.012	3	Chamghorgh	0.047	43	dehnosoki	0.057	83	Najaf Abad	0.071	123
Dinarvand Bala	0.013	4	Dinarvande Paien	0.048	44	Fath Abad	0.057	84	Lalari Yek	0.072	124
Robat Namaki	0.015	5	AsgarAbad	0.048	45	Amir Abad	0.057	85	Paitakhte Yek	0.073	125
Tappeh Goji	0.018	6	Pasil	0.048	46	Heydar Abad	0.057	86	Yek Borje	0.073	126
Razan	0.021	7	Sarabe Jaldan	0.048	47	Chenar Kal	0.058	87	Vera Zardi	0.074	127
Sorkhe Deh Paien	0.023	8	Zarin chogha Bala	0.048	48	Medbe	0.058	88	Parelah	0.075	128
Sarab changaie	0.027	9	Paghale	0.049	49	Ghaleno	0.058	89	Akbar Abad	0.075	129
Pirged	0.029	10	ayazAbad	0.049	50	Dehno Karim	0.058	90	Gezleh	0.075	130
Tir Bazar	0.030	11	Kasian Rostamkhani	0.049	51	Jolakamar	0.058	91	CheshmePapi	0.076	131
Eskin Olia	0.031	12	Ayoshane Seil	0.049	52	Shabandar	0.058	92	partpil	0.078	132
Seif Abad	0.032	13	Chenar Shore	0.049	53	dehno	0.058	93	kolagah	0.078	133
Poshte Jazaeri	0.033	14	Dehsefid	0.049	54	silreza	0.058	94	dahga	0.082	134
Dehno Pirejed	0.033	15	Sarabe Ganjali	0.049	55	Ghasem Abad	0.058	95	Rozgirah	0.083	135
Koh Mine	0.035	16	Kargane	0.049	56	Golemkabod	0.059	96	Mahtar	0.085	136
Deh Noroz	0.036	17	Abshabandar	0.050	57	Shekar Abad	0.059	97	Regsefid	0.087	137
Dolat Abad	0.039	18	Gilvaran Paien	0.051	58	Chaghahoroshi	0.059	98	Poshtkereh	0.088	138
Sheraf Bag	0.041	19	Bade	0.052	59	Cheshmedareh	0.059	99	Kornokar	0.091	139
Dolatshahi	0.041	20	Dareh Abas	0.052	60	Sarab elias	0.059	100	beralike	0.093	140
Chamanjir	0.041	21	Zard abad	0.052	61	Khelaj dareh	0.059	101	sarreg	0.096	141
Mian Gelal	0.042	22	Kalechobe Bala	0.053	62	Nomale	0.059	102	dafkandar	0.096	142
Khanjankhani	0.042	23	Ghnat Kasian	0.053	63	Mehrenar mohamad	0.059	103	Saleh hamid	0.098	143
Kahriz	0.042	24	Cheshme Ali	0.053	64	Khamsiane Rishsefid	0.059	104	sayerem	0.100	144
Mahdi Abad	0.042	25	Sorkhe Lize	0.054	65	BangPileh	0.059	105	Kolabti	0.103	145
ZahedShir	0.042	26	Milmilk	0.054	66	Polhava	0.060	106	Karbostan	0.105	146

name of the village	Index Q	rank	name of the village	Index Q	rank	name of the village	Index Q	rank	name of the village	Index Q	rank
CheshmeParian	0.043	27	Chaghabal	0.054	67	HaftCheshmeh	0.061	107	Khangah	0.106	147
Tajere Sadat	0.043	28	Khamsiane Paien	0.054	68	Khane Chobi	0.063	108	totChehre	0.110	148
Sarab Pardeh	0.044	29	Bidhol	0.055	69	Minoo Bala	0.063	109	Rozmianaki	0.114	149
Remele	0.044	30	Pirmahi	0.055	70	sokeh	0.064	110	gandabeh	0.115	150
Gilavand	0.044	31	Bidgije Yek	0.055	71	Talkestan	0.065	111	$Total\ development = \frac{Total\ index\ Q}{Number\ of\ villages}$=0.056		
Paraponeh	0.045	32	Pilgah	0.055	72	Sarabe Kian	0.065	112			
Belilvand	0.045	33	tahmasebi	0.055	73	Cha Bagh	0.065	113			
Chenar Kheiri	0.045	34	Sarabe Maleki	0.056	74	Totdar	0.066	114			
Tangpanj	0.045	35	zaliab	0.056	75	Gareh	0.067	115			
Dare Hendian	0.045	36	Dehsefid Bala	0.056	76	dehsefid	0.068	116			
Sangtarashan	0.045	37	Shoja Abad	0.056	77	Bandjoob Do	0.068	117			
Badie se	0.045	38	Koloy	0.056	78	Khosrokhani	0.068	118			
Sarabe Robat	0.046	39	Girchan	0.056	79	Takaneh	0.069	119			
Bahramjo	0.046	40	Shirkhani	0.057	80	Zarinjoo	0.069	120			

Measuring the level of rural development in the district- Table 6 shows the ranking of the villages under study in terms of the level of eligibility. Among the 150 villages examined in Khorramabad county, Masour village with the coefficient of 0.020 has the highest level and ten villages of Dahmohsen, Darayi, Dinarvand bala, Tappeh Gaji, and Robat Namaki with coefficients 0.02, 0.023, 0.026, 0.027, and 0.028 are ranked second to sixth, respectively, and are known as developed villages. It could be said that all 6 villages, known as developed villages, are the villages of the center of the rural district. Besides, due to their central location, they have higher eligibility level than other villages. Moreover, these villages and most of the developing villages have been settled in the lowland areas and largely part of the populated villages of the county. This indicate that these villages have good access to economic, social, and cultural services. In contrast, the villages that are known as underdeveloped villages including Gandabeh, Roozmianki, Toutchehreh, Khangah, Karboustan, Kolabti, and Sirom are in the lowest level, or less developed. Most of them are mountainous and have a smaller population. Besides, due to their distance from the main centers, they do not have good access to their required services

Evaluation of the Sustainability of the Total District- Table (6) shows the ranking of the villages according to VIKOR model. According to this model, Q index shows the ranking of the villages in the development process, ranging from zero to one. The closer this to zero, the more developed the village is and the closer to one, the level of development decreases. To obtain the total development rate of the villages in the study area, the sum of the Q index is divided by the total of villages (150) and the average development in the district as a whole is obtained. The average development in the total study area is 0.056. The mean level of development shows that the development in the whole area is at an average level. Indeed, it can be said that the villages under study in Khorramabad have a moderate level of development.

In Table 7 below, for a better view of the development level of the villages under study, they were classified into five groups of underdeveloped, less developed, medium-developed, developing and developed villages based on the value of Q. As the table shows, villages with Q-index of 0.08 to

0.1 were identified as underdeveloped villages, and 17 out of the 150 villages were classified in this group. The villages with a Q-index of 0.06 to 0.08 are identified as the less-developed villages among which 28 of the 150 villages are in this category. Villages with Q-index of 0.04 to 0.06 are medium-developed with 87 villages. Most of the villages under study are in this group. The fourth group of villages with a Q-index of 0.02 to 0.04 is known as developing with 12 villages . Finally, the villages with the Q-index 0 to 0.02, which are classified as the developed villages, have 6 villages.

Table 7. Classification of Total Area Development
(Source: Research findings, 2019)

Number of villages in each group	Q Index value	Development status
Under developed	0.08-0.1	17
Less developed	0.06-0.08	28
Medium- developed	0.04-0.06	87
Developing	0.04-0.02	12
Developed	0.02-0	66

Map 2 shows the spatial distribution of villages according to the level of development. As it is seen in the map, the spatial distribution of development in the rural districts of Khorramabad has not been homogeneous and in some districts (west of the county) the developed villages are concentrated and dense. Instead, they are located in the northern, central, and eastern regions with medium-development. Moreover, deprivation and isolation have a significant percentage of the villages located in the south of the county. Overall, if the whole county is divided into the northern and southern parts, one can see that the northern part of the county is more developed and the southern part is less developed or undeveloped. Indeed, the mountainous and low population of these villages caused, on the one hand, insufficient population thresholds to provide many services and, on the other hand, not only hamper the access of villages to the services of other area but also challenge the spatial organization of the villages. Overall, the results in Map 2 show that the spatial distribution pattern of development in the rural districts of Khorramabad is mainly clustered due to demographic, service, educational, economic, and productive factors. Moreover, the spatial pattern of development in Khorramabad shows the imbalance in the spatial structure and polarization of eligibility of the rural areas in such a way that the disruptions in the performance of the spatial system of the villages of Khorramabad with the polarization of the deployment of activities and services in these area is obvious. Accordingly, if the development of rural areas in the city is ignored, the resources and capabilities of these areas will be lost and the villages will be evacuated.

4.2. Analyzing the extent to which the factors affect the development of rural areas

Figure 4 shows the standardized coefficients, correlation coefficients and intensity of the relationship between variables of agricultural production resources, education, and access to services, economic welfare, economic participation and population growth with rural development variable. The intensity of the relationship is a between zero and one. The closer this to one, the stronger the relationship will be. As can be seen in Figure 4, the intensity of the relationship between the variable of access to services and rural development is 0.95. This value is 0.94 for the economic welfare and economic variables, 0.71 for agricultural resources, 0.68 for education, and 0.56 for the population growth. The variables of access to services, economic welfare, and economic participation compared to other variables were more correlated with the rural development variable and the population growth variable had the least correlation with the rural development variable in the studied villages in Khorramabad.

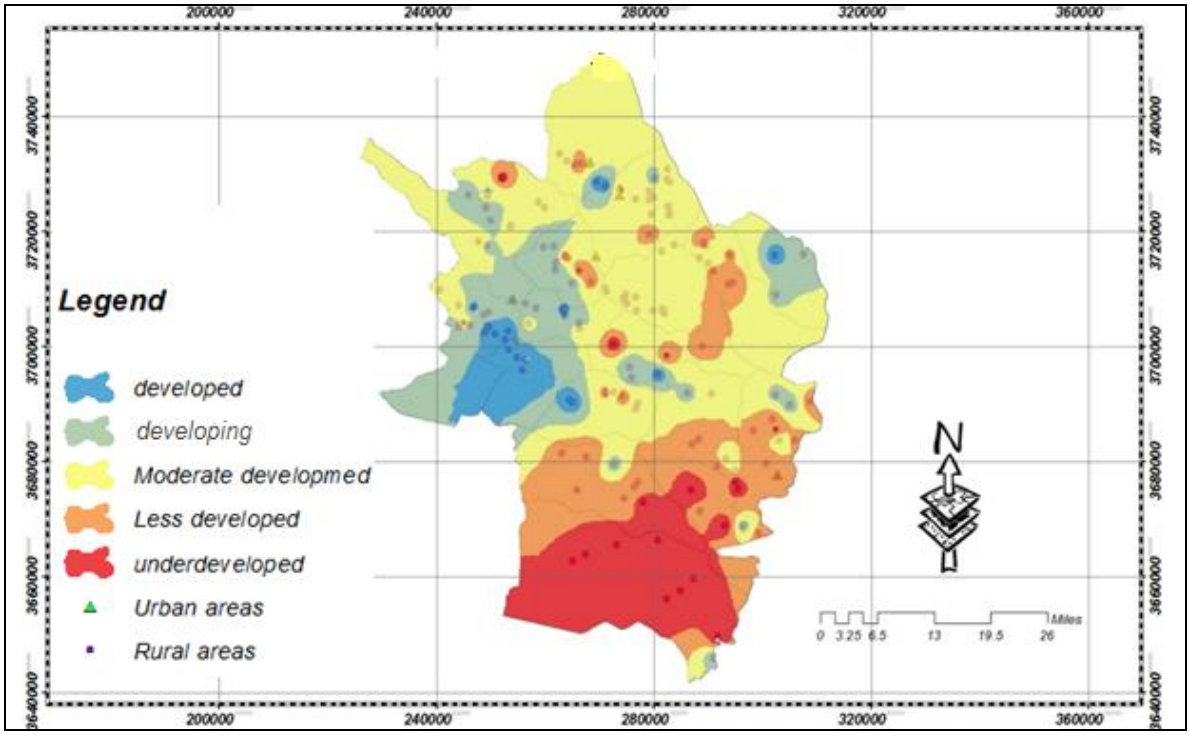

Figure 5. Spatial pattern of villages of Khorramabad based on the level of development
(Source: Research findings, 2019)

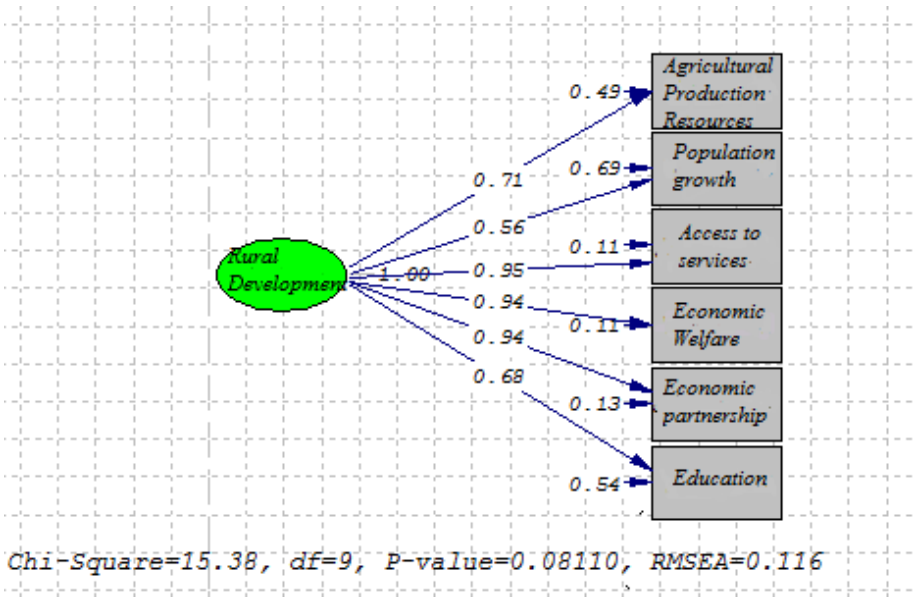

Figure 6. Standardized Coefficient Values
(Source: Research findings, 2019)

In Figure 5, *t*-values show the significant relationship between the variables. To be significant, t-values must be greater than 1.96. In Figure (5), all 6 variables are more than 1.96 and; therefore, the relationship is significant.

R2 value, or coefficient of determination, shows the contribution of each of the independent variables (economic participation, economic welfare, population growth, education, and access to agricultural production services and resources)

to the dependent variable (rural development). This value in LISREL software output for service access is 0.68; for economic participation equals to 0.58; for economic welfare equals to 0.56; for agricultural resources equals to 0.43; for education 0.18; and for the population growth is 0.09. This means that the access to services accounts for 68% of the variations in rural development variables which has the greatest effect on rural development. Next, economic participation, economic well-being, agricultural production resources, and education accounted for 58%, 56%, 43%, and 18% of the variations, respectively. Finally, the population growth with 0.07% has the lowest effect among these six variables on rural development.

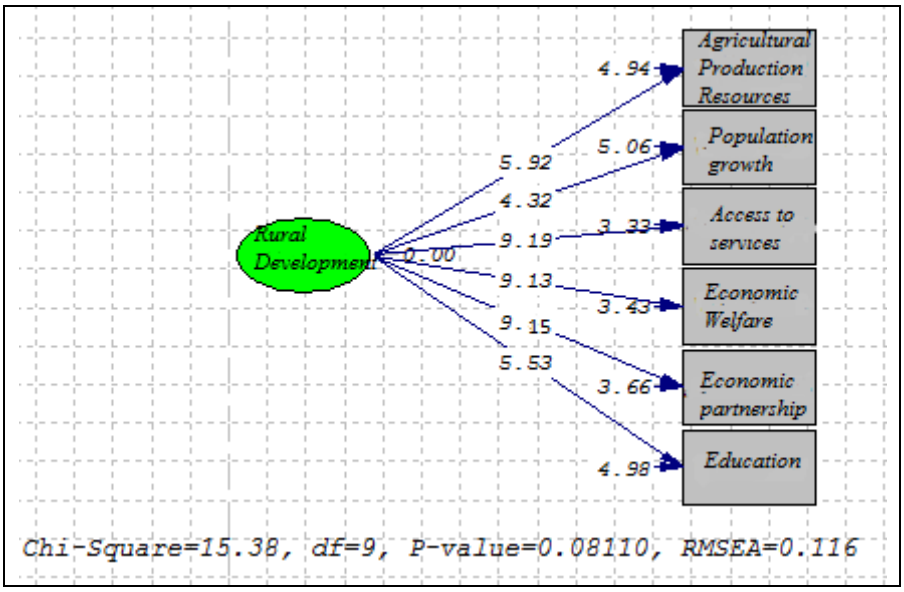

Figure 7. T-values
(Source: Research findings, 2019)

5. Discussion and Conclusion

Balanced development is one of the essential prerequisites for sustainable development that stresses the equilibrium of living conditions and the various aspects of development for all people. However, the imbalance between areas in various social, economic, and cultural contexts will cause spatial discord. In this sense, the study tried to examine and analyze this issue in the rural district of Khorramabad county. Concerning the results, this study achieved the following results:

- Khorramabad county has relatively good conditions in the process of development. In this process, integrated development has not been realized. Some components (access to services, economic participation, and economic welfare) have proper conditions, while others (agricultural production resources, education and population growth) are in an inappropriate situation. These conditions resulted in the decline of the villages.
- The level of development in Khorramabad county has confronted spatial inequality not only by topic-specific but also by the area-specific factors. This inequality has led to the formation of a center-periphery spatial pattern that has caused the marginalization (and deterioration) of disadvantaged villages.

A comparative review of the results of this study with those of other researchers can be traced in the following studies being conducted by Riyahi et al. (2015), Ziaian et al. (2015), Rokneddin Eftekhari & Aghayari Hir (2015), Rahmani Fazli et al. (2015), and Saeedirad et al. (2014).

Based on the results, realizing the principles and goals of sustainable development in rural areas requires an integrated effort based on facilities, capabilities, and capacities of rural areas, in an attempt to reducing inequality and spatial imbalance, the acceleration of the development process of such areas.

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تحلیل فضایی توسعه‌یافتگی سکونتگاه‌های روستایی مبتنی بر رویکرد توسعه پایدار (مطالعهٔ موردی: روستاهای شهرستان خرم‌آباد)

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چکیده مبسوط

۱. مقدمه

توسعه پایدار روستایی فرآیندی است که ارتقای همه‌جانبه حیات روستایی را از طریق زمینه‌سازی و ترغیب فعالیت‌های هم‌ساز با قابلیت‌ها و تنگناهای محیطی (به مفهوم عام آن) مورد تأکید قرار می‌دهد. در همین رابطه مهمترین هدف توسعه پایدار روستایی عبارت خواهد بود از قابل زیست کردن عرصه‌های زندگی برای نسل‌های فعلی و آینده با تأکید خاص بر بهبود و توسعه مداوم روابط انسانی- محیطی. بر همین اساس، پژوهش حاضر درصدد است به ارائه‌ی تصویری منطقی، روشن و قابل درک از چگونگی وضعیّت توسعه در نواحی روستایی شهرستان خرم‌آباد بپردازد که اهداف اختصاصی زیر را هم در بر دارد: تحلیل فضایی و سنجش درجه‌توسعه‌یافتگی و رتبه‌بندی مناطق روستایی شهرستان خرم‌آباد؛ وضعیت‌سنجی شاخص‌های متعارف توسعه‌یافتگی مناطق روستایی شهرستان خرم‌آباد.

۲. مبانی نظری

در مورد توسعه نگرش‌ها و نظریات گوناگونی ارائه شده است از جمله رویکرد کیفیت زندگی، مبادله اجتماعی، توسعه یکپارچه و توسعه پایدار که در این مطالعه چارچوب توسعه پایدار مورد تاکید می‌باشد. امروزه رویکرد توسعه‌ی پایدار به عنوان چارچوبی برای تحلیل پایداری نظام سکونتگاه‌های انسانی به طور عام و سکونتگاه‌های روستایی به‌طور خاص از ارزش و اعتبار بالایی برخوردار است. مفهوم توسعه‌ی پایدار در برگیرنده‌ی موارد و موضوع‌هایی چون توانمند شدن افراد بسیار فقیر، ایده‌ی توسعه‌ی خوداتکاء، ایده‌ی توسعه‌ی هزینه- اثر، موضوع مهم کنترل سلامت، فناوری مناسب، استقلال غذایی، آب بهداشتی و مسکن برای همه است و مفهومی است که در آن ابتکارات مردمی مورد نیاز و سعادت بشر در این مفهوم گنجانده شده است با توجه به موارد فوق تعریف پایداری روستایی به صورت زیر است: فرآیندی همه جانبه، موزون و درون زا که در چارچوب آن توانایی‌های اجتماعات روستایی برای رفع نیازهای اساسی مادی و معنوی و کنترل مؤثر بر نیروهای شکل دهنده نظام سکونت محلی (اکولوژیکی، اجتماعی، اقتصادی، کالبدی-فضایی، نهادی) و سرزمینی رشد و تعالی می‌یابد

۳. روش شناسی

روش‌شناسی این پژوهش کمی مبتنی بر منطق قیاس و براساس روش داده‌پردازی و براساس هدف کاربری است. جامعه آماری تحقیق روستاییان روستاهای شهرستان خرم‌آباد را در بر می‌گیرد. با توجه به گستردگی محدوده مورد مطالعه حدود ۲۰ درصد از روستا که برابر با ۱۵۰ روستا می‌باشد از طریق نمونه‌گیری مرحله‌ای انتخاب شده‌اند.

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بدین صورت که ابتدا روستاها به سه دسته روستاهای کوهستاتی، دامنه‌ای و دشتی طبقه بندی شده‌اند سپس هر کدام از این سه دسته، به سه دسته روستاهای با جمعیت زیاد، متوسط و کم طبقه بندی شده و در نهایت با نمونه‌گیری تصادفی ساده از هر دسته ۵۰ روستا و در مجموع ۱۵۰ روستا انتخاب شده است. برای بررسی توسعه سکونتگاه‌های روستایی از تعداد۲۶ شاخص عینی که از سالنامه آماری و سرشماری نفوس و مسکن سال ۱۳۹۵ بدست آمده استفاده شده است. در گام اول با استفاده از مدل FANP وزن نهایی شاخص‌ها محاسبه شده، سپس با استفاده از تکنیک ویکور رتبه‌بندی روستاها انجام گرفته است. در نهایت آزمون تحلیل مسیر برای تعیین سهم هر عامل در میزان توسعه‌یافتگی مناطق روستایی بکار گرفته شده است

۴. یافته‌ها

رتبه بندی روستاهای نمونه در شهرستان خرم‌آباد به لحاظ توسعه یافتگی نشان می‌دهد که روستای ماسور با مقدار ضریب ۰.۰۲۰ در رتبه اول و در بالاترین سطح توسعه یافتگی و روستاهای ده محسن، دارایی، دینارووند بالا، رباط نمکی و تپه گجی با مقدار ۰۲۲.۰، ۰۲۷.۰، ۰۳۵.۰، ۰۳۷.۰ و ۰۳۹.۰ در رتبه‌های دوم تا ششم قرار دارند. همچنین روستاهای سیرم، کل آب تی، کربوستان، خانگاه، توت‌چهره، روزمیانکی و گندابه با ضرایب ۱۰۰.۰، ۱۰۳.۰، ۱۰۵.۰، ۱۰۶.۰، ۱۱۰.۰، ۱۱۴.۰و ۱۱۵.۰ در پایین‌ترین سطح از توسعه قراردارند. میزان توسعه کل روستاهای ناحیه مورد مطالعه برابر با ۰۵۶.۰ می‌باشد که بیانگراین است که توسعه درکل ناحیه در حد متوسط قرار دارد

با استفاده از تحلیل خوشه‌بندی K میانگین، مناطق روستایی شهرستان در پنج سطح مناطق توسعه یافته، مناطق نسبتا توسعه یافته، مناطق با توسعه متوسط، مناطق در حال توسعه و مناطق توسعه نیافته یا محروم از توسعه طبقه‌بندی شده‌اند. در گروه اول یعنی روستاهای توسعه یافته ۶ روستا(۴ درصد)،گروه دوم یا مناطق نسبتا توسعه یافته ۱۲روستا (۸ درصد) در گروه سوم یعنی مناطقی با توسعه متوسط ۶۷ روستا(۶.۴۴درصد) در گروه چهارم یا مناطق کمتر توسعه یافته ۵۸ روستا(۶.۳۸درصد) و در گروه پنجم یا مناطق روستایی توسعه نیافته ۷روستا (۶.۴درصد) قرار گرفته اند. الگوی فضایی روستاها بر مبنای سطح توسعه را نشان می‌دهد. به طور کلی اکثر روستاهای توسعه یافته و درحال توسعه در قسمت غرب شهرستان واقع شده‌اند. روستاهای توسعه یافته در قسمت غرب قرار گرفته‌اند. این روستاها دارای موقعیت نزدیکی به جاده‌های اصلی و نزدیکی به مرکز بخش و مرکز شهرستان هستند که نشان‌هنده وضعیت دسترسی مطلوب می‌باشد. روستاهای نسبتا توسعه یافته نیز اکثرا در قسمت غرب شهرستان و در مجاورت روستاهای توسعه‌یافته و مراکز شهری قرار گرفته‌اند. همچنین اکثر روستاهای توسعه نیافته در قسمت جنوب و جنوب‌شرق شهرستان واقع شده‌اند. بیشتر این روستاها از مرکز شهرستان و مرکز بخش دور بوده و وضعیت دسترسی مطلوبی ندارند

۵. بحث و نتیجه‌گیری

مبتنی بر یافته‌ها، این پژوهش به نتایج زیر دست یافت:

شهرستان (ناحیه) خرم آباد، در فرایند توسعه یافتگی، در وضعیت نسبتا مناسبی قرار دارد. در این فرایند، توسعه یکپارچه تحقق نیافته، در برخی از مولفه‌ها (دسترسی به خدمات، مشارکت اقتصادی و رفاه اقتصادی) از شرایط مناسب و در برخی مولفه‌های دیگر(منابع تولید کشاورزی، آموزش و رشد جمعیت) از وضعیت نامناسب‌تری قرار دارد. این شرایط، برخی از روستاها را در مسیر زوال قرار داده است؛

- سطح توسعه یافتگی در شهرستان (ناحیه) خرم آباد نه تنها از جنبه موضوعی، بلکه از جنبه موضعی (مکانی) با نابرابری فضایی رو به رو شده است. این نابرابری زمینه ساز شکل‌گیری الگوی فضایی مرکز - پیرامونی شده است که منجر به حاشیه‌ای شدن (و زوال) روستاهای کم برخوردار شده است؛
- با توجه به یافته‌ها و نتایج پژوهش، تحقق اصول و اهداف توسعه پایدار در نواحی روستایی نیازمند تلاشی یکپارچه مبتنی بر امکانات، قابلیت‌ها و ظرفیت‌های نواحی روستایی است تا ضمن کاهش نابرابری‌ها و عدم تعادل‌های فضایی، بتواند روند توسعه این نواحی را تسریع ببخشد.

کلمات کلیدی:تحلیل فضایی، توسعه سکونتگاه‌های روستایی، رویکرد توسعه پایدار، شهرستان خرم آباد.

تشکر و قدردانی

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Evaluating Local Community Attitudes towards the Effects of Mass Tourism (Case Study: Boyer-Ahmad County)

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Abstract
Purpose- Over the past few decades, tourism has played an important role in revitalizing the nature, creating employment and income, preserving natural, historical and cultural heritage, and ultimately sustainable development by utilizing the natural and cultural capacities of the region. Since tourism has different economic, social, cultural, and environmental impacts on host communities, awareness of the attitude of the host community as a tourism product provider is of great importance. The main objective of the study is to investigate the local residents' attitude toward mass tourism effects in Boyer-Ahmad County.
Design/methodology/approach- The present study is descriptive-analytical in nature. It takes an empirical approach. The research instrument was a questionnaire with 82 items that gathered the information needed for the research. The sample size was calculated to be 195 individuals using PASS software at 95% of confidence level. One-sample t-test, ANOVA, Friedman, and Scheffe post-hoc tests were used to analyze and respond to research hypotheses in SPSS software.
Finding- The results of t-test considering the significance level of the test and the high and low levels of confidence indicated the impact of tourism in the environmental, economic, social, and fundamental dimensions, while the results of ANOVA test showed that the average of each dimension was different. The results of Friedman test with a significant level of 0.00 have assigned the highest rank to the fundamental dimension.
Key words- Local community's view, Mass tourism, Tourism effects, Boyer-Ahmad County.
Paper type- Scientific & Research.

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1. Introduction

Knowledge of tourism is to study the mankind out of his/her usual residence, an industry that replies to the needs and the impacts that both mankind and the industry have on host social-cultural, economic, and environmental settings (Mason, 2015). Many development experts know rural tourism development as an essential element in the reclamation and restoration of rural regions (Daneshmehr, Karimi & Safari, 2012) which can be considered as a major cause at making positive or negative changes in the fundamental, economic, social-cultural, and environmental characteristics at the local, regional, and national level. Tourism activity can also be a propellant factor, resulting in the evolution and the development of destination and can also be as a pressure agent which is a mixture of desirable and undesirable consequences. Tourism is two sides of a coin experiencing both peace, safety, democracy, freedom, social-cultural development, and economic prosperity on the one side, while on the other side there is cultural banality, insecurity, disease spread, depravity, corruption, contraband band, multi-billion dollar revenues flow into several international corporates' accounts and tourists' lack of self-steam in front of other countries' material progresses (Papoli Yazdi & Saghaiee, 2011). Such conditions can lead to excite host community people despitefulness and opposition against tourists especially if the tourism demands lead to raise prices of commodities and services (Henderson & Gohari, 2013). Hence, in tourism studies, especially in the last two decades, residents have been considered as the main core of many tourism studies (Vosoughi & Khoshkan, 2010). For example, Lind et al, (2011) have developed a model investigating the effects of different factors on the local residents' attitudes. The results indicated that residents have more agreement and tendency to the tourism development as much as possible when they achieve its economic benefits (Ghadami, Aligholozadeh & Ramezanzadeh, 2010). Tourism development must be in a way that beside responding to the recreational needs and promoting the quality of tourists' experience it can assist to improve the host community and its environment (Hejazi, Zareie & Goudarzi, 2011). For this reason, there are strategies for controlling negative impacts of tourism in managing and planning of tourism destinations (Gee. Parsaeian & Arabi, 2010).

One of the ways of optimizing local communities' positive attitudes toward tourism is to increase their awareness and understanding about function and role of tourism (Delbari & Rajabi, 2011). In general, codifying and combining the dynamic, comprehensive, and effective strategies, and their prioritization will optimize the management of the destinations because there is a limitation of the resources and the necessity of considering different problems in different intervals. This objective occurs according to the characteristics of the region in terms of tourism resources, volume and type of tourists, local communities' attitudes, and the availability of facilities and services as the effective factors in destination development strategies (Ziaei & Hasanpour, 2012). Hence, it is necessary to investigate the attitudes and views of residents in tourism regions as a host community to examine the presence of tourists and their understanding about the impacts of the current industry for promoting tourism development (Soleimani Harouni, Khosravipour, Baradaran & Ghanian, 2009). Major part of tourism studies has been allocated to investigate local people's attitudes and the understanding of the effects and range of their participation and protection in tourism development (Vosoughi & Khoshkan, 2010). Therefore, further research is necessary in this field to argue the community's satisfaction toward the development of tourism industry. Investigation of the tendency and the attitude of residents toward tourism development is essential for two reasons. First, if the tourism development is not compatible with the society's desires and goals, tensions and conflicts will arise which ultimately may lead to the tourism depression. Second, it is inalienable right of local residents to participate in developing activities including the community's benefits and losses. (Rezaei, Sharifzadeh & Paski, 2011).

Since tourism development in rural areas is an essential element for rescuing villages from poverty, migration, and socio-economic problems, many experts have focused on developing rural tourism in the rehabilitation and reconstruction of rural areas (Daneshmehr et al., 2012; Mahdavi, Ghadiri Masooms & Ghahremani, 2008). This

industry is so important in the socio-economic development of countries that economists call it the invisible exports. It can be considered as an important factor in the appearance of positive and negative changes in the economic, social-cultural, and environmental characteristics of the local, regional, and national levels. This activity can either be a leading factor in the evolution and development of the destination or it can also be a factor of pressure with the combination of desirable and undesirable outcomes. Therefore, further research in this field is needed to address the society's satisfaction about the development of tourism industry. Many studies have shown the residents' attitudes toward tourism may be directly related to the degree of development in the host society. Particularly in the ecotourism, the emphasis is placed on the attitudes and beliefs of local residents and their inclusion from the beginning of planning (Liu, Sheldon & Var, 1987).

In this regard, due to the importance of the subject, structural modeling capabilities were used to study the effects of tourism development on the mental image of the local community. Structural equation modeling is a powerful tool that, while enjoying high precision, enables the analysis of complex human sciences phenomena. This method provides the possibility of analyzing information in a multivariate and interrelated manner and is placed at the higher position than regression analysis, path analysis, and factor analysis (Bayern, 2011). Structural equation modeling is a second-generation statistical analysis technique that is used to analyze the interrelationships between multiple variables in a model (Keshavarz, 2014). Analyzing the covariance structures or causal modeling or structural equations modeling is one of the main methods for examining complex and multivariate data structures, whose main feature is the simultaneous analysis of several independent and dependent variables (Kirschkamp, 2007). This method is a set of statistical methods for modeling the relationships between independent and dependent variables (structural model) and hidden and observable variables (measurement model) (Ullman, 2006).

Boyer-Ahmad County with the centrality of Yasouj City, Iran, is the distention for many tourists travelling, because it includes numerous natural and anthropogenic attractions. By emerging tourism and creating its outcomes in economic, political, environmental, and social-cultural dimensions, many issues such as local residents' view in the area have been affected. In order to achieve sustainable and integrated tourism planning and managing the region, awareness about the impacts of mass tourism development on the local residents' views has become necessary. Presenting the control strategies, decreasing the negative impacts, and increasing the positive effects of tourism process based on studying local community's view as the tools for successful development of tourism are inevitable in order to maximize the native community's participation.

In this study, using a survey method and employing structural equations modeling, a model of the consequences of tourism development was introduced on the viewpoint of native community in Boyer-Ahmad County, Iran, which is a new concept in tourism.

The results of this study will provide a profound understanding of the impact of mass tourism on local communities, which, if properly designed and managed, can create a development process to achieve sustainable development in rural areas as well as the sustainability of local communities in all the economic, social, and cultural branches of the tourism industry. This is the basis of the community's contribution to tourism development.

The support and participation of the local community as a key factor in the development of sustainable tourism for various purposes requires increasing the awareness of the tourist effects as development and change both occur when local communities have active participation in tourism activities. Dynamic, systematic, and extensive studies of the impacts of tourism on host societies are subjects that need to be studied in an accurate and deep scientific way. Therefore, this research aims to examine the local community's view toward the environmental, economic, social, and fundamental effects of mass tourism development on the region to protect and develop this region in the direction of the sustainable tourism to put tourists, residents, and environment in suitable and sustainable interactions. The importance and value of the research focuses on the fact that by identifying, planning, and managing the opportunities available in Boyer-Ahmad County

to cater the tourist's leisure needs, the region's economic and social rehabilitation will be provided. Research hypotheses are as follows:

1. From the perspective of local residents, development of tourism has caused economic impacts.
2. From the perspective of local residents, development of tourism has caused social impacts.
3. From the perspective of local residents, development of tourism has caused environmental impacts.
4. From the perspective of local residents, development of tourism has caused fundamental impacts.
5. The average impact of tourism on different dimensions has been different.

2. Research Theoretical Literature

Various studies have been conducted on the mental image of the local community towards tourism development. Considering the subject area of the research, some external and internal studies are reviewed**.** In a general, it can be stated that based on the benefits of tourism for the local community, their level of support and satisfaction is also overshadowed. In this regard, Some tourism researchers confirmed that economic development and management of a tourism area will vary depending on the residents' perceptions of the impacts of tourism especially in the early stages of development. Ling, Shaharudin, Johari, Khin Than & Abdul Rani (2011) and Alipour Eshliki & Kaboudi (2011) believe that tourism affects the life quality of the local community members and there is an important relationship between the factors affecting the quality of life of community members and their level of participation in tourism development.

Hanafiah, Jamaluddin & Zulkifly (2013) and Türker & Öztürk (2013) also suggested that if tourism benefits are optimally distributed in the community, residents of tourism areas and destinations will have a positive attitude towards tourism development. According to the results of the study by Gnanapala & Karunathilaka (2016), residents of planned tourism sites in Sri Lanka see tourism development as an increase in job opportunities for young people believing that it improves facilities such as roads, water, and electricity. Ganizares, Maria & Julia (2014) have emphasized that the result of such a process is the agreement of the majority of the residents to enter the region and ultimately to obtain the positive benefits of tourism development**.** In fact, according to the results of the research by Homsud & Sompong (2015), residents' perceptions from tourism impacts were received while their satisfaction results in the tourism support. Residents' support is an important factor that guarantees tourism success. In this regard, one of the other factors affecting the synergy between tourists and local residents depends on the degree of contact between them. Bagheri & Rashid Clivar (2018) emphasized that the increase of contact between tourists and local residents would overshadow the support of tourism development.

Garcia, Angeles, Fernandez, Balbuena & Macias, (2016), however, examined the impact of residents' characteristics on their perceptions of the economic, environmental, and socio-cultural impacts stating that as educational attainment increases, attitudes toward tourism tends to be positive. Sita & Nor Ashikin (2015) explored the degree of relationship between local residents and tourists**.** The results indicated that the development of tourism in some areas also leads to destructive effects, which in turn, causes negative perceptions among local communities.

Mutanga, Vengesayi, Kwanisai, Mirimi & Chipotoreke (2013) indicated that the loss of control over resources causes irreparable damage to local communities, which will lead to negative perceptions about tourism and its development. Wu & Chen (2015) and Tichaawa & Maloney (2015) examining the views of residents of Victoria, Macao, and Singapore cascades on tourism development and its environmental, economic, and social impacts have found that the spread of negative effects causes disturbing feelings in the minds of local residents. Thus, despite the strong economic dependence on tourism, social problems may arise.

Internally, researchers with different perspectives have studied the impact of tourism on local residents' attitudes. In this regard, Adeli (2012) has used social tolerance capacity as an indicator of sustainability in order to study the host society's attitude towards tourism and its consequences. Kazemi Pour, Saadatyar & Bitaraf (2011) have attributed the mental image of tourists to perceived quality. Mansouri Moaeyed & Soleimani (2012) have considered the internet as

the most important tool in influencing tourists' emotional image. Investigating the results of previous research into the internal dimension has also confirmed the positive and negative effects of tourism and consequently its impact on the attitude of local residents. Babakhanzadeh & Lotfi (2012) and Taghdisi, Taghavi & Piri (2012) believe in the positive and negative effects of tourism from the viewpoint of the inhabitants of tourism areas. Vosoughi & Khoshkan (2015) argued that cultural differences can have both positive effects such as preserving and reinforcing cultural foundations, expanding and improving the status of cultural and artistic centers, more understanding of the local residents from the native culture, and negatives effects such as damaging the authenticity of indigenous cultural patterns, commodifying indigenous cultures, and so on**.** In another study, Naderi Mehdiei, Azani, Yaghoubi Frani & Rousta (2013) and Amirhajilo, Tavalaei, Zanganeh & Zanganeh (2013) found that tourism had the most positive effects on the economic dimension followed by the social effects and the most negative consequences related to the environmental impacts. Babakhanzadeh (2013) examining the effects of tourism development on the Ormanat region concluded that the negative impacts are the highest in the environmental dimension and the positive impacts are the highest in the economic dimension. Ghorbani, Zadvali & Zadvali Khajeh (2014) introduced the factor of change in traditional village customs as the most negative effects.

According to the results of Ahmadi's study (2018) in rural areas of Zanjan province, the most general effect of tourism on rural economy sustainability was related to the employment index (0.776) and the least overall effect was related to the capital index (0.089). The research results of Aliyari, Sharifzadeh & Ahmadvand. (2019) showed that in the field of economic effects of combining 21 variables, 4 factors of economic opportunities, living costs, employment, and economic gap explained 63.30% of the variance of tourism effects. Anabestani, Saeedi & Darvishi (2012) by studying the economic, social, fundamental, and environmental effects of tourism development in rural settlements from the viewpoint of tourists and villagers of Arjan Fars Plain determined that the most change is related to environmental dependent variable**.** Jamshidi, Barakpour & Kalantari, (2012) have also expressed the significant spatial impact of Razavi shrine on spatial distribution of tourism services in analyzing the spatial effects of urban tourism attractions on Mashhad tourism services. However, as Kazemipour Sabat, Rezaei & Ramazanifar (2015) have shown, there is a significant relationship between tourism development and the attitude of the respondents towards increasing social damages**.** Therefore, it should be noted that according to the results of the assessment of local people's attitude by Amini, Bakhti & Babajamali (2015), the positive assessment of local community towards economic and fundamental impacts may be due to the short-term occurrence and perception of these effects, while the negative effects in the more sensitive fields of environmental and social in the longer-term can also overshadow its positive impact**.** Bayat, Badri & Razvani (2018), based on social exchange theory, considers perceptions of local residents as a function of their degree of impact along with both positive and negative effects of tourisms. As stated by Motiee Langroudi & Rezaeeye Azadi (2013) and Aligholizadeh Firouzajai, Ramezanzadeh Lasbouei & Esmaeili (2014), these effects will lead to the support of the local community.

Therefore, it should be noted that according to the results of the assessment of local people's attitude by Amini et al. (2015), the positive assessment of local community towards economic and fundamental impacts may be due to the short-term occurrence and perception of these effects, while the negative effects in the more sensitive fields of environmental and social in longer-term can also overshadow its positive impact**.** In fact, their level of support depends on the level of tourism development, job dependency, income dependency, education level, and so on. Ghanian & Hasheminejad (2016) highlighted the most important incentive for local residents in participating in sustainable tourism development activities related to "allocating government privileges to environmental stakeholders", "enhancing recreational opportunities and rural and regional amenities" ,"more governmental attention to the area ","a sense of pride and belonging to the region", "an interest in sustainable tourism activities", and "the conservation of natural resources and landscapes" **.**The same positive effects on the attitude of

Ardebil villagers to tourism development were identified according to the results stated by Bagheri & Rashid Clivar (2018). Despite the majority of the villagers' tendency to attract tourists, the rural tourism potential has not been used in most of the villages. The present study seeks to evaluate the impacts of mass tourism on the local community from the perspective of local residents in Boyer Ahmad city using the results of previous studies.

Therefore, a comprehensive research tool was designed and the factors affecting the attitude of the local community towards the effects of mass tourism were identified by gathering the necessary data. Paying attention to these factors and their results can be effective in policy making to mitigate the weaknesses and enhance the positive consequences of tourism in the region and, ultimately, to lead to the satisfaction and support of local residents.

3. Research Methodology

3.1. Geographical Scope of the Research

Boyer-Ahmad County by the centrality of Yasuj city is composed of 4 parts including Margoon, Markazi, Ludab, and Kabkian. This county is located in the latitudes between 30°18´N and 30°39´ N and the longitudes between 50°54´E and 51°34E. Its population is over 252,746. The county with lush rivers such as Bashar, Dashtroom, Qabkiyan, tight sorkh (red), Tang Sorkh, and important springs with refreshing and roaring mineral water and natural Gglaciers is proposed as one of the likely zones for the development of tourism and has a great potential for tourism planning.

3.2. Methodology

The present research is practical in type as it takes a descriptive-analytic approach. Relying on the questionnaires, field- methodology was used to determine the views of local communities toward the development of tourism. The research statistical population is 58047 cases in urban and rural of Boyer-Ahmad County. PASS software was applied to determine the required sample volume. The effective parameters in calculating the sample size in the software are based on the power test and the confidence level. The results of different scenarios with different test abilities and confidence levels show that the highest sample size with the highest test ability and the highest level of confidence was 195 people which give the researcher the best result. The results are presented in Table 1. The sample size with 99% of confidence level of 195 people was used.

Table 1. Effective Parameters in sample volume calculation based on test power and the level of confidence

(Source: Research findings, 2019)

Sample Confidence Level	Distance Size (N)	Distance from P to Upper Limit	from P to Upper Limit	Proportion (P)	Lower Limit	from P to Upper Limit	Limit if P=0.5
0.950	98	0.050	0.050	0.100	0	0.150	0.083
0.960	111	0.050	0.050	0.100	0	0.150	0.083
0.970	128	0.050	0.050	0.100	0	0.150	0.083
0.980	152	0.050	0.050	0.100	0	0.150	0.083
0.990	195	0.050	0.050	0.100	0	0.150	0.083

The sampling method is random. As the study population were citizens living in urban and rural areas of Boyer Ahmad county, questionnaires were distributed equally in urban and rural areas of the study area. In order to be closer to the community estimation, it was attempted to distribute the questionnaire in more villages. Therefore, the distribution of the questionnaires to 195 samples being analyzed by PASS based on the highest test power and 99% of confidence level was performed in 10 villages of Wazg, Qalat, Kakan, Tal-e Khosrow, Mansour Abad Dasht-e Roum, Deli Uladi Ali Momen, Imamzadeh Mokhtar, Tang Sariz, Dehno, and Tang Tamoradi. Cronbach's alpha method was used to assess the reliability of the research instrument. The value of 0.931 indicates the reliability of the research instrument.

4. Research Findings

Local residents' attitude and tendency is accounted as the major cause of planning in tourism and the inhabitants' participation is considered as a catalyst in the planning of the sustainable development of tourism. In this

research, previous studies and theoretical principles are reviewed to evaluate the attitudes of the local community toward the environmental, economic, social, and fundamental effects of mass tourism on Boyer-Ahmad City. Appropriate statements for the investigation of tourism effects and attitudes of local community were analyzed by using one-sample *t*-test. Kolmogorov-Smirnov test was used to ensure the normality of the research data and to select the appropriate statistical tests. The results of the test with a significance level higher than 0.05 indicated that the data were normal. Parametric statistical tests can be used to answer the hypotheses. Table 2 indicates the results of one sample t-test for assessing the significance of economic impacts of mass tourism based on the local community's view. According to the *t*-test and its significance level, development of tourism has had significant economic impacts from the view point of local community.

Extremely high economic impacts were accepted in indexes such as developing the business, increasing the price of goods and services, increasing the price of land, creating local markets in the city, growing local economy, decreasing agricultural jobs, creating a small gap between household income, lack of investment in other sectors, increasing income gap between residents and increasing the income of governmental organizations, and raising the costs of public services (for example garbage collection). The impact of tourism development on the indicators such as the creation of high occupations for the community, attracting more investment for society, increasing taxes and assets, expanding service jobs, reducing unemployment, increasing people's income by tourism, increasing purchasing power of residents, creating false occupations, shifting labor force to tourism, increasing the welfare of life, seasoning residents' incomes , reducing poverty and regenerating the region has been moderate, while its impact on raising the transport fares within the city and inter transportation and raising the public service charges has been low.

Table 2. Economic impacts of mass tourism based on local community's view
(Source: Research findings, 2019)

Economic indexes	Test value =3					Effect Assessment
	T value	Significance level	Mean difference	Confidence interval (95%)		
				Lower	Upper	
Creating many jobs for the community	1.60	0.10	0.17	-0.03	0.37	Moderate
Attracting further investment in the community	0.36	0.71	0.04	-0.17	0.25	Moderate
Developing the business	3.02	0.00	0.31	0.10	0.52	High
Increasing the price of goods and services	4.11	0.00	0.37	0.19	0.55	High
Increasing the price of land	2.88	0.00	0.29	0.09	0.50	High
Increasing the taxes and assets	-1.86	0.06	-0.16	-0.34	0.00	Moderate
Creating local markets in the city	2.19	0.02	0.23	0.02	0.43	High
Developing service jobs	0.47	0.63	0.05	-0.15	0.25	Moderate
Raising the transport fares within the city	-2.00	0.04	-0.19	-.038	-0.00	Low
Growing the local economy	2.65	0.00	0.27	0.07	0.47	High
Reducing unemployment	-1.59	0.11	-0.16	-0.36	0.03	Moderate
Decreasing agricultural jobs	7.82	0.00	0.59	0.44	0.74	High
Increasing people's income through tourism	0.87	0.38	0.08	-0.10	0.27	Moderate
Increasing the purchasing power of residents	-0.10	0.91	-0.01	-0.20	0.18	Moderate
Creating a small gap between household income	7.49	0.00	0.60	0.75	0.44	High
Increasing the income of governmental organizations	3.53	0.00	0.33	014	0.52	High
Creating false jobs	1.54	0.12	0.14	-0.03	0.32	Moderate
Raising the costs of public service	-2.9	0.00	-0.28	-0.47	-0.09	Low

Economic indexes	Test value =3					Effect Assessment
	T value	Significance level	Mean difference	Confidence interval (95%)		
				Lower	Upper	
Iincreasing the income gap between residents	7.26	0.00	0.57	0.41	0.72	High
Labor mobility towards tourism	0-1.35	0.17	-0.12	-0.29	0.05	Moderate
Revitalizing the region	-0.79	0.42	-0.08	-0.28	0.11	Moderate
Seasonal income for residents	-0.91	0.36	-0.08	-0.27	0.10	Moderate
Lack of investment in other sectors	9.95	0.00	0.78	0.62	0.93	High
Reducing the poverty	-1.92	0.05	-0.18	-0.37	0.00	Moderate
Increasing the welfare	-0.77	0.43	-0.07	-0.26	0.11	Moderate

Table 3 presents the findings of one sample *t*-test for investigating the significance of social impacts of tourism development based on local communities' view. According to the obtained results from 28 social indexes, significance of impacts of indexes such as encouraging wide range of cultural activities, more cultural exchanges between tourists and residents, local residents' satisfaction of tourism, keeping alive the culture and ethnic identity of residents, decreasing people's local dialect, fame of the region, increasing the national and cultural pride of the region, increasing the people's sense of hospitality, increasing the migration of native people, increasing cultural differences, changing architectural style of region houses, spreading diseases, changing the type of ceremony (i.e., weddings & mourning), increasing the local and ethnic conflicts, decreasing patterns of abusive behavior in people and local people's quality of life were confirmed to be extremely high.

Table 3. Social impacts of mass tourism based on local community's view
(Source: Research findings, 2019)

Social indexes	Test value =3					Effect Assessment
	T value	Significance level	Mean difference	Confidence interval 95%		
				Lower	upper	
Encouraging wide range of cultural activities	4.15	0.00	0.47	0.21	0.60	High
More cultural exchanges between tourists and residents	6.08	0.00	0.59	0.40	0.78	High
More leisure opportunity for local people	-0.30	0.76	-0.03	-0.22	0.16	Moderat
Local residents' satisfaction of tourism	11.59	0.00	0.83	0.69	0.97	High
Keeping alive the culture and ethnic identity of residents	5.73	0.00	0.53	0.35	0.72	High
Changing the life style of residents	-0.26	0.79	-0.02	-0.21	0.16	Moderat
Changing the wearing style of residents	-1.30	0.19	-0.12	-0.31	0.06	Moderat
Decreasing people's local dialect	3.38	0.00	0.31	0.13	0.49	High
Improving the security	1.59	0.11	0.14	-0.03	0.32	Moderat
Fame of the region	1.027	0.00	0.92	0.74	1.10	High
Increasing national and cultural pride of the region	19.10	0.00	1-17	1.05	1.298	High
Regeneration of historical buildings and monuments	1.06	0.28	1.11	-0.09	0.31	Moderat
Increasing people's sense of hospitality	9.07	0.00	0.75	0.59	0.92	High
Increasing migration of native people	7.15	0.00	0.59	0.42	0.75	High
Raising young people's motivation for residence and occupation	1.38	0.16	0.26	-0.10	0.63	Moderat
Behavioral abnormalities in young people	-2.84	0.00	-0.27	-0.45	-0.08	Low
Developing cultural differences between	5.59	0.00	0.49	0.32	0.66	High

Social indexes	Test value =3					Effect Assessment
	T value	Significance level	Mean difference	Confidence interval 95%		
				Lower	upper	
tourists and residents						
Damaging the historical attractions and monuments	5.11	0.00	-0.48	0.66	-0.29	Low
Changing the architectural style of region houses	4.28	0.00	0.39	0.21	0.56	High
Spreading disease	7.21	0.00	0.62	0.45	0.79	High
Changing the type of ceremony (i.e weddings, mourning)	13.66	0.00	0.94	0.80	1.08	High
Increasing the local and ethnic conflicts	9.01	0.00	0.75	0.58	0.91	High
Tendency towards prosperous life and luxury goods	-1.33	0.18	-0.30	-0.74	0.14	Moderat
Stimulating a sense of profiteers and self-interest	-0.84	0.40	-0.08	-0.28	0.11	Moderat
Decreasing local people's quality of life	9.25	0.00	0.75	0.59	0.91	High
Creating patterns of abusive behavior in people	3.58	0.00	0.31	0.14	0.48	High
Promoting residents' comfort level	-1.69	0.09	-0.15	-0.33	0.02	Moderat
Increasing quality of food and type of reception in the region	-0.56	0.57	0.05	-0.24	0.13	Moderat

Presented findings in table 4 investigate the significance of environmental impacts of tourism based on the local community's attitudes. According to *t*-test and its significance level, the effectiveness of environmental indexes based on the local community's view was confirmed to be negative in indexes such as increasing different types of sound and visual pollution, increasing garbage in the city, decreasing the quality of environment entertainment, destroying the natural environment of the region for making hotels, and other tourism facilities, while the high positive impact on protecting the natural environment of the region, providing motivation for repairing historical buildings, protecting the plant species of the region, and spreading green space were well-defined. The effectiveness of improving the appearance of the region (Visual and aesthetic), the creation of attractions and landscapes and the cleanliness of the texture of the area due to the development of tourism has been evaluated to be moderate.

Table 4. Environmental impacts of mass tourism based on local community's view
(Source: Research findings, 2019)

Environmental indexes	Test value =3					Effect Assessment
	T value	Significance level	Mean difference	Confidence interval 95%		
				lower	upper	
Protecting the natural environment of the region	3.68	0.00	0.36	0.16	0.56	High
Improving the natural environment condition	-2.01	0.04	-0.19	-0.38	0.00-	Low
Improving the region's appearance (aesthetic and visual)	-0. 63	0.52	-0.06	-0.24	0.12	Moderate
Motivation for restoration of historical buildings	2.71	0.00	0.26	0.07	0.44	High
Destroying the natural environment of the region for making hotels and other tourism facilities	5.77	0.000	0.47	0.30	0.63	High
Increasing garbage in the city surface	6.74	0.000	0.59	0.41	0.76	High

Environmental indexes	Test value =3					Effect Assessment
	T value	Significance level	Mean difference	Confidence interval 95%		
				lower	upper	
Cleaning the region's tecture	-0.61	0.54	-0.05	-0.23	0.12	Moderate
Developing green space	2.77	0.00	0.27	0.07	0.46	High
Increasing different types of sound and visual pollution	5.87	0.000	0.46	0.31	0.62	High
Protecting the plant species of the region	5.68	0.000	0.50	0.32	0.68	High
Creating attractions and landscape	1.76	0.07	0.17	-0.01	0.36	Moderate
Decreasing the quality of environment entertainment	5.69	0.000	0.44	0.29	0.59	High
Decreasing the environmental services	4.37	0.000	0.34	0.18	0.49	High
Protecting wildlife	3.18	0.00	0.27	0.10	0.44	High

The results of investigating the significance of fundamental impacts of tourism based on the local community's view are presented in table 5. According to *t*-test and the significance level of test, the significance of effectiveness of fundamental indexes based on local community's view was confirmed to be highly positive in indexes such as improving the status of roads and communication routes, increasing access to transportation services and accommodation facilities, and receiving catering facilities. The fundamental impact of tourism has been also positive in decreasing demolition of city texture.

The fundamental impacts of tourism in the indexes such as coordinating the development of tourism infrastructure, land use change, improving the construction and pattern of housing architecture, increasing residential construction, expanding health facilities, and expanding the tourism of homes have been confirmed to be positive at the moderate level. The unsuitable land use change of neighborhood spaces to parking for tourists, the unsuitable land use change of commercial spaces to tourists' commercial services, and disruptions in the provision of amenities due to tourism have been among the extreme negative fundamental effects of tourism.

Table 5. Fundamental environmental impacts of mass tourism based on local community's view
(Source: Research findings, 2019)

Fundamental indexes	Test value =3					Effect Assessment
	T value	Significance level	Mean difference	Confidence interval 95%		
				lower	upper	
Changing landuse	1.56	0.11	0.14	-0.03	0.31	Moderate
Developing second homes tourism	1.68	0.09	0.14	-0.02	0.31	Moderate
Changing inappropriate use of neighborhood spaces with tourists' vehicle parking	3.28	0.00	0.30	0.11	0.48	High
Improving pedestrian status and communicational roads	3.01	0.00	0.28	0.09	0.47	High
Increasing the residential construction	-0.52	0.60	-0/05	-0.24	0.13	Moderate
Increasing destroy of texture	-3.55	0.00	-0.31	-0.24	-0.14	Low
Expanding health- treatment facilities	-1.59	0.11	-0.16	-0.36	0.03	Moderate
Increasing access to transportation services and accommodation facilities and residential and catering facilities	9.48	0.00	0.71	0.56	0.86	High
Improving the construction and	-1.21	0.22	-0.11	-0.30	0.07	Moderate

Fundamental indexes	Test value =3					Effect Assessment
	T value	Significance level	Mean difference	Confidence interval 95%		
				lower	upper	
housing architectural pattern						
Fading out the true nature of the neighborhood and turning out to tourism attraction	-2.06	0.04	-0.18	-0.35	-0.00	Low
Increasing and improving the infrastructural facilities and services	-0.81	0.41	-0.08	-0.27	-0.11	Moderate
Developing more and better service facilities for community	-0.90	0.36	-0.09	-0.28	-0.10	Moderate
Developing more and better entertainment facilities for local community	-0.39	0.69	-0.04	-0.24	-0.16	Low
Disruption in providing daily needs because of increasing tourism use	6.13	0.00	0.52	0.35	0.69	High
Changing the inappropriate use of commercial spaces to commercial services	4.90	0.00	0.45	0.26	0.63	High
Matching the tourism infrastructure development	-1.04	0.30	-0.10	-0.28	0.08	Moderate

In table 6, the significance of the difference between the average indices of local residents' assessment among the effects of four economic, environmental, social, and fundamental dimensions was investigated using ANOVA. According to the findings in Table 4, with the significance level of 0.000, the inequality of the average evaluation of mass tourism is a statistically significant factor from the view point of local residents.

Table 6: A review of the significance of the difference between the observed effects
(Source: Research findings, 2019)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10.490	3	3.497	5.013	.002
Within Groups	272.046	390	.698		
Total	282.536	393			

A comparative study of the tourism impact assessment rankings has been done from the viewpoint of local residents using Friedman test. The results presented in Table (7) show that tourism development in Boyer-Ahmad has its most effects on the fundamental field, while the social, environmental, and economic changes are in the next ranks, respectively.

Table 7. Average rating of observed effects
(Source: Research findings, 2019)

Dimension	Mean Rank
Economic	2.02
Social	2.46
Environmental	2.34
Fundamental	3.18

In order to categorize the effects of tourism development in Boyer-Ahmad city, Scheffe post-test was used. This post-test allows for similar indexes in terms of the effects within one class. In table 8, four indicators of impacts measurement in terms of similarity or difference in the effectiveness rate of Boyer-Ahmad province have been classified into three categories.

Table 8. Scheffe Post-test classification for effects
(Source: Research findings, 2019)

Dimension	N	Subset for alpha = 0.05	
		1	2
Economic	72	3.0179	
Social	97	3.0563	
Environmental	117	3.0849	
Fundamental	108		3.4206
Sig.		.959	.054

As it is clear from the findings of Table 8, the environmental, social, and economic criteria have the same average effects and fall into one category, but the average effects of fundamental dimension are categorized in a separate class.

5. Discussion and Conclusion

Participation and support of local community are as the key factors that are important and essential in the direction of sustainable development of tourism in different objectives. Development and change occur when local communities have active participation in the tourism activities. Similar studies have shown the role and contribution of local residents in tourism development. Homsud & Sompong (2015), Babakhanzadeh & Lotfi, (2012), and Motiee Langroudi & Rezaeeye Azadi (2013) have studied this issue and have come to the conclusion that tourism in areas that are part of the lives of residents and considered as a factor for economic development are being shared and supported by the local community. The results of the present research revealed that tourism impacts have been meaningful in all dimensions from the view of local community. Overall, there is significant positive attitude toward its development.

In the effects analysis of tourism development, the most effects were related to the fundamental dimension according to the average rate of 3.18 in Friedman test. The social dimension with an average rate of 2.46 was also more effective than the other dimensions in improving the positive attitudes of the residents. Environmental changes with an average rate of 2.34 are the third most influential one. In examining the economic effects of the development, the average rate of 2.02 placed this index in the last rank. So, it can be said that tourism development from the view of local community of Boyer-Ahmad County leads to a few negative points such as income gap between residents, lack of investment in the other parts of society, and a few positive points such as improving the status of roads and communication routes, increasing access to transportation services and accommodation facilities, and receiving catering facilities. The examination of the social capital impact on community's behaviors encouragement toward ecotourism performed by Liu et al. (2014) presented that residents' pro-environmental behaviors are mainly affected by economic benefits and the cognitive variant. Heng & Siu Lai (2012) by applying structural model to inspect the participation of residents' intention in ecotourism highlighted the role of environmental knowledge, positive ecotourism attitudes, and environmental planning for promoting residents' tendency about local attractions. However, Mohammadian Mosammam et al. (2016) in their study of exploring ecotourism development approach in Mazandaran Province, Iran, presented that only the economic dimension speciously looks favorable which is not inclusive, but equitable and sustainable. The emergence of tourism in the aforementioned area reminds the need for a real-time planning according to the current conditions. The results of this study can provide a basis for development planners. The ultimate result of such a phenomenon, will be the sustainability of tourism development based on the satisfaction and enjoyment of the three sides of the tourism triangle, including host, society, and planners in a systematic approach.

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ارزیابی نگرش جامعه محلی نسبت به اثرات گردشگری انبوه (مطالعه موردی: شهرستان بویراحمد)

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چکیده مبسوط

۱. مقدمه

بسیاری از متخصصان توسعه، راه حل بسیاری از مشکلات مناطق روستایی را توسعه گردشگری روستایی بعنوان عنصری اساسی در احیا و بازسازی مناطق روستایی می‌دانند. که می تواند عامل مهمی در بروز تغییرات مثبت و منفی در ویژگی های اقتصادی، اجتماعی، فرهنگی و محیطی در سطح محلی، ناحیه‌ای و ملی محسوب شود. این فعالیت هم می‌تواند به عنوان عامل پیشران، باعث تحول و توسعه مقصد شوند و هم می‌تواند به عنوان عامل فشار، آمیزه ای از پیامدهای مطلوب و نامطلوب را به همراه داشته باشد. چنین شرایطی می تواند منجر به برانگیخته شدن حس دشمنی و ضدیت مردم جامعه میزبان در مقابل گردشگران شود به خصوص اگر تقاضاهای توریست منجر به افزایش قیمت کالاها و خدمات شود. از این رو در مطالعات گردشگری، به ویژه در دو دهه اخیر، ساکنان به مثابه هسته اصلی بسیاری از تحقیقات گردشگری در نظر گرفته شده اند. تا حدی که بخش عمده‌ای از مطالعات گردشگری به بررسی نگرش و درک تاثیرات و میزان حمایت و مشارکت مردم محلی در توسعه گردشگری معطوف گردیده است. شهرستان بویراحمد با مرکزیت یاسوج با برخورداری از جاذبه های متعدد طبیعی و انسانی مقصد سفر گردشگران بسیاری قرار گرفته است. به منظور برنامه ریزی و مدیریت پایدار و یکپارچه گردشگری در منطقه آگاهی از اثرات توسعه گردشگری انبوه بر دیدگاه ساکنان محلی ضرورت پیدا کرده و ارائه استراتژی‌های کنترل وکاهش اثرات منفی و افزایش تبعات مثبت روند گردشگری مبتنی بر مطالعات دیدگاه جامعه محلی به منظور به حداکثر رسانی مشارکت جامعه بومی به عنوان یکی از ابزارهای توسعه موفق گردشگری اجتناب ناپذیر می نماید. لذا تحقیق حاضر به دنبال بررسی اثرات توسعه گردشگری انبوه بر دیدگاه جامعه محلی و کاهش اثرات منفی و افزایش پیامدهای مثبت در حفظ و توسعه این منطقه در مسیر پایداری گردشگری است تا بتوان گردشگران، ساکنان و محیط زیست را در تعاملی پایدار و مناسب قرار داد.

۲. مبانی نظری

گردشگری به مثابه مهمان نوازی تجاری بر مؤلفه و متغیر بازدیدکنندگی نقش های گردشگری توجه دارد. طرفداران این مفهوم معتقدند فرایند گردشگری نوع تجارتی شده مناسبات سنتی میان میزبان و مهمان است که در آن غریبه ها و مسافران در جامعه میزبان نقش هایی موقتی ایفا می کنند؛ بنابراین گردشگری به عنوان مهمان نوازی تجاری و صنعتی معرفی می شود. فرآیند گردشگری در مقاصد گردشگری دارای اثراتی است که این اثرات سبب ساز واکنش جامعه میزبان می گردند. طبق نظر وال (۱۹۹۷) عوامل کلیدی سهیم در ماهیت اثرات عبارتند از: نوع فعالیت های گردشگری صورت گرفته، ویژگی های جامعه میزبان در منطقه مقصد و ماهیت تعامل بین دیدارکنندگان و ساکنین. دیویسون (۱۹۹۶) طیف مشابهی از اثرات را ارائه داده و همچنین اهمیت زمان و مکان را در اثرات گردشگری لحاظ نموده است. به نظر او به دلیل فصلی بودن فعالیت های گردشگری، اثرات گردشگری در زمان های خاصی از شدت بیشتری برخوردار هستند.

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همانگونه که ویلیامز (۱۹۹۸) اشاره کرده است بدون برنامه ریزی این خطر وجود دارد که یک فعالیت، بی نظم، نامشخص و بدون حساب و کتاب شده و احتمالا منجر به یک سری اثرات منفی اقتصادی، اجتماعی و زیست محیطی شود و این اثرات و ادارک آن در بین ساکنین واکنش های متفاوتی را ایجاد نماید. اندریوتیس و وگان معتقدند که مهمترین ویژگی ساکنین آن است که آنچه توسط آنان ادراک می شود لزوما با واقعیت موجود هماهنگ نیست؛ در واقع ادراک آنان از واقعیت و نه خود واقعیت است که بر روی نگرش و به تبع آن، طرز رفتار ساکنین تاثیر می گذارد. بسیاری از محققین بر این باورند که نگرش ساکنین نسبت به گردشگری، تنها بازتاب ادراک آنان از پیامدهای گردشگری نیست بلکه چنین نگرشی در تعامل میان ادراک ساکنین و مجموعه عوامل تاثیرگذار بر نگرش آنان شکل می گیرد.

۳. روش تحقیق

پژوهش حاضر کاربردی و از نظر ماهیت و روش، توصیفی ـ تحلیلی از نوع پیمایشی است. به منظور آگاهی از دیدگاه جوامع محلی نسبت به توسعه گردشگری از روش میدانی مبتنی بر پرسشنامه استفاده شده است و نتایج حاصل از فرآیند پرسشگری با استفاده از آزمون‌های آماری مربوطه در نرم افزار SPSS و AMOS مورد تحلیل قرار گرفته است. جامعه آماری پژوهش ۲۵۲۷۴ نفر جمعیت روستایی و شهری شهرستان بویر احمد می باشد. برای تعیین حجم نمونه مورد نیاز از نرم افزار PASS استفاده شده است. پارامترهای موثر در محاسبه حجم نمونه در این نرم افزار بر اساس توان آزمون و سطح اطمینان است. چنانچه نتایج حاصل از سناریوهای مختلف و با توان‌های آزمون و سطوح اطمینان متفاوت نشان می دهد بالاترین میزان حجم نمونه با بالاترین توان آزمون و بالاترین سطح اطمینان ۱۹۵ نفر بوده است که بهترین نتیجه را در اختیار محقق قرار می‌دهد

۴. یافته و نتیجه‌گیری

نتایج پژوهش حاضر حاکی از آن است که در تمامی ابعاد اثرات گردشگری از دیدگاه جامعه محلی معنادار بوده است و به طور کلی نگرش مثبت معناداری نسبت به توسعه وجود دارد. در تجزیه و تحلیل اثرات توسعه گردشگری، بیشترین اثرات مشاهده شده با نرخ میانگین ۳/۱۸ در آزمون فریدمن برای بعد کالبدی مشاهده شد ه است. بعد اجتماعی با کسب نرخ میانگین ۲/۴۶ نیز از دیگر ابعاد اثرپذیری بیشتری از گردشگری داشته و تغییرات اجتماعی ناشی از توسعه گردشگری در جایگاه دوم قرار گرفته است. تغییرات محیطی با نرخ میانگین ۲/۳۴ سومین حوزه اثرات گردشگری را در بر گرفته است. در بررسی لث رات اقتصادی توسعه گردشگری، نرخ میانگین۲/۰۲ این شاخص را در آخرین رتبه قرار داده است. بنابراین می توان گفت که توسعه گردشگری از دیدگاه جامعه محلی شهرستان بویراحمد در ابعاد منفی و مثبت آثاری را ایجاد کرده است. از اثرات منفی می توان به مواردی مانندند شکاف درآمد بین ساکنان و عدم سرمایه گذاری در بخش های دیگر اشاره کرد. از نکات مثبت می توان به مواردی از جمله بهبود وضعیت جاده ها و راه های ارتباطی، افزایش دسترسی به خدمات حمل و نقل و امکانات اقامتی و دریافت امکانات پذیرایی اشاره داشت. در مجموع می توان بیان کرد نوپایی گردشگری در منطقه مورد مطالعه لزوم برنامه ریزی مبتنی بر واقعیت و وضعیت کنونی را یادآور می گردد. نتایج تحقیق حاضر می تواند مبنایی کاربردی برای برنامه ریزان توسعه فراهم آورد که نتیجه آن پایداری توسعه گردشگری بر مبنای بهره مندی هر چه بیشتر سه ضلع مثلث گردشگر، جامعه میزبان و برنامه ریزان در یک رویکرد سیستمی خواهد بود.

واژه های کلیدی: دیدگاه جامعه محلی، گردشگری انبوه، آثار گردشگری، شهرستان بویراحمد.

تشکر و قدرانی

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The Analysis of the Ecosystem Capacity of Semirom County in the direction of Return Migration Planning

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Abstract

Purpose- Return migration acts as a driving force of development and a key incentive of prosperity in rural areas by fulfilling their potentials. Rapid population displacement in developing countries including Iran, reveals the necessity of return migration planning. Semirom is a county in Isfahan province with the highest rate of emigration based on the 2011 Census enjoying sufficient potentials to change this trend. The overall purpose of this study is to analyze the ecosystem capacity of Semirom in order to develop a return migration planning.

Design/methodology/approach- The research method is descriptive-analytical. As such, this study can be categorized as an applied research. The environmental, social, economic, and managerial aspects are hereby considered. The questionnaire of Semirom situation assessment was analyzed using inferential statistics (t-test) by SPSS. Content analysis was conducted by interviewing officials using Atlas.ti software. Internal and external factors evaluation matrix and SOAR model were used to offer strategies. In the end, adaptive strategic alternatives are prioritized using the QSPM planning approach and policies for the realization of the return migration. Statistical population consists of the residents and authorities of Semirom county.

Findings- The findings indicate that the most important factors affecting return migration are reinforcement of gardening, related industries and tourism attractions, improving the quality of welfare services, fostering the sense of belonging, and the availability of fertile soil and sufficient irrigation water. Accordingly, the strategy of "appropriate management of tourism and environmental spaces for proper utilization of natural resources" should be given priority. It is also suggested that proper utilization of natural resources and tourism along with the potential of eco-tourism can offer a great opportunity for sustainable employment. This requires efficient management of new approaches and providing a secure environment for investment and entrepreneurship. In other words, considering the potentials of tourism will improve the quality of amenities, infrastructure services and employment, which in turn can boost their quality of local life, and their willingness to stay permanently in their rural residence, which ultimately encourages immigrants to return to their homeland.

Key words- Migration, Return migration, Ecosystem, Semirom County.
Paper type- Scientific & Research.

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1. Introduction

As a global phenomenon, migration describes international movements inside and outside of a country. In most developing countries, such movements are chiefly domestic, which involves an estimated number of 763 million people worldwide (World Economic Forum, 2017). In today's world, migration as a means of protecting livelihoods or diversifying resources has been on rise (Nzima, Duma & Moyo, 2016). In the meanwhile, rural poverty influences the rapid growth of urbanization and migration problems (Mukhtar, Zhong, Tian, Razzaq, Naseer & Hina, 2018). In the 1990s, a new trend of population displacement to non-urban areas emerged in the United States picking up an astonishing pace over time (Beale, 1997). In Iran, migration, which is generally unidirectional with emigrated ruralers having no intention of returning to their homelands, has changed over the past decade. For the first time in the history of Iran, according to 2011 Census, the population migrating from the city to the rural areas outnumbered those leaving rural areas for cities by 100,000 people, which is indicative of a return migration trend (Mirfallah Nasiri, Delazimi, F., & Sabaghi, 2016). In this regard, Semirom with a net migration of -3670 and -4003 people had the highest rate of immigration in Isfahan province in 2016 and 2011, respectively (Isfahan Management and Planning Organization, 2018).

Rural-urban migration is prompted by various social, economic, political, cultural, and environmental factors, with the prospect of finding a job serving as a key parameter (Lohnert, 2017). Informed by factors such as the low agricultural productivity, lack of knowledge and professional skills, structural change of economy, underdeveloped rural living standards, and absence of a safety network and rural livelihood support programs, local resident abandon their indigenous homelands in the hope of earning higher incomes in cities to tackle these problems. However, the rapid growth of the urban population is not compatible with infrastructure and utilities. In addition, the unsuccessful enforcement of labor laws and affordable health regulations have made migrants vulnerable in migration destinations (Mukhtar et al., 2018, p. 2). The city capacity depends on the strength and responsiveness of their leadership and management, and the flexibility and coherence of immigration policies in place. Migration policy will have a major impact on economic growth (World Economic Forum, 2017). Sustainability is also a desirable goal and an ongoing process being rooted in the balance between environmental, economic, and social development (Shen et al., 2013). Therefore, special attention should be dedicated to rural development planning for migration control (Mukhtar et al., 2018). A key step of development in each country and region is identifying available resources and potentials while formulating systematic plans and programs to fulfill such potentials, which is a major requirement of sustainable development (Jafari, 2016). Therefore, it is necessary to address the issue of return migration as a solution to the problems of rural emigration. Considering the attractiveness and ecosystem potential of Semirom, continued emigration will depopulate one of the most wonderful cities of Isfahan and its inhabitants which may end up living in informal settlements and ghettos if they fail to assimilate into the cities.

By designing a return migration planning model in Semirom, this town can be transformed into a sustainable place that promotes the welfare of its local residents by identifying and exploiting its indigenous capabilities. Moreover, it can help alleviate some of Isfahan's urban population growth problems. Accordingly, this research is designed to achieve the following goals:

1- Identifying the ecosystem potential of Semirom
2- Investigating the factors affecting return migration in Semirom
3- Developing a desirable planning model for the fulfillment of return migration in Semirom

2. Research Theoretical Literature

2.1. Concepts

Return migration is defined as "a situation where migrants return to their country of origin after spending a long time abroad (destination)" (Kunuroglu, Van de Vijver & Yagmur, 2016). This phenomenon "is rooted in the growing appeal of the rural areas due to the development of income generating activities such as livestock breeding or agriculture, retirement, and sometimes the predicaments of urban life" (Okali, Okpara & Olawoye, 2001). It is a "reaction to economic, social, and family factors" (Wang, 2004). It also

offers deep insights into altered relationships between individuals, communities, and their environmental environments over time (Likens, 1992). Further, it describes a set of biological conditions related to human behavior that are characterized with the social context and climatic conditions of each region (Poursadeghi, 2014). Mayer also argues that capacity building prepares the ground for encouraging and empowering indigenous peoples so that vulnerable people can pick up new skills to promote sustainable development within the local community (Forouzani, Yazdan Panah & Farajam, 2014). In general, the concept of ecosystem capacity refers to the potentials of a certain ecosystem to create a set of sustainable ecosystem-based services for the future (Bordt, 2015). Generally, return migration strategies have been proposed in three approaches: inhibiting migration, shifting migration direction, and decreasing the trend of migration using the Rural Development Programs Policy as a strategy to curb migration (Shojaei, 2013). Rural development involves a goal-oriented process of improving rural life conditions in environmental, social, and economic dimensions while increasing their ability to optimally utilize their resources in rural areas (Nouri & Norouzi, 2016). The main goals of rural development is to improve efficiency and production, equitable distribution of resources for poverty alleviation, fulfillment of basic human needs, employment and entrepreneurship, effective public participation in decision-making, increased confidence and capacity building along with the development of local institutions (Alikhani, Khodayari, Dehnavi & Verijkazemi, 2013). Also, numerous studies around the world have exhibited that the chief goals of rural development are generation of income and jobs. The main mechanism that can contribute to the achievement of this goal is entrepreneurship, which enhances income, rural participation and confidence. Entrepreneurship requires recognizing the demands of rural economic actors to support them in diverse areas including access to markets (national, international, local), protection against risks (drought, soil erosion, etc.), activities (agriculture, industry, services, tourism), policy strengthening (development, investment, etc.), adjusting the type of activity, and the need to organize economic actors (production, marketing, etc.) (Figure 1).

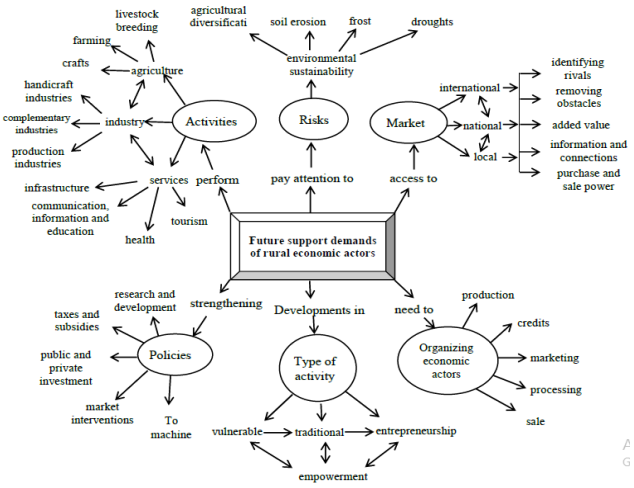

Figure 1. A conceptual framework for the needs of rural entrepreneurs
(Source: Rokneddin Eftekhari & Sojasi Ghidari, 2013, p. 101)

2.2. Theories

According to Everett S. Lee theory, factors related to the origin and destination of migration have a bearing on the willingness to migrate (Hagen-Zanker, 2008). Thus, in the new economy of labor migration (NELM), return is a logical outcome of a "calculated strategy", which involves accumulating capital with the intention of making a successful investment in the place of origin (De Haas, Fokkema & Fassi, 2015).

Social network theory also sees returned immigrants as people striving to foster a strong relationship with their origin. This increases the likelihood of migration as it diminishes related costs and risks and amplifies the expected returns

(Awumbila, Kofi Teye & Awetori Yaro, 2016). In this context, key elements are friends, family, and the media that ensure a safe migration process for them (Permata & Prasetyo, 2017).

The theory of local sustainable development is also concerned with meeting the daily needs of residents with the utmost reliance on their resources, capacities, values, and internal partnerships. Principles and criteria of local sustainability include identity and vitality, dynamism and adaptability, diversity, accessibility, and local tolerance capacity (Ahadnejad Rushti, Yari Gholi & Ojaklu, 2014).

2.3. Approaches

According to Lary Shastad's Human Capital Approach, migrants assess their performance in form of cost-benefit analysis to see whether the benefits of an action outweigh its cost and it yields economic returns (Afarakhteh, Monafi Azar & Velaei, 2016). On the other hand, the rural ecosystem approach integrates design, agriculture, and ecological building, green production, alternative energy, community, aned stimulating the community members to place a premium on environmental, social, and physical conditions of their surroundings. It also nurtures robust collaboration at individual and community levels including organizations such as community, local agencies, government agencies, nonprofits organizations, and other stakeholders to achieve a sustainable socio-environmental system (Yuliastuti, 2017).

The Sustainable Livelihood Approach (SLA) states that policies, institutions, markets, and processes can also influence the choice of livelihood strategies and poverty eradication. Participation also entails a bottom-up approach (Nzima et al., 2016).

2.4 background

The study of Shen, Kyllo & Guo (2013) on environmental taxation and urban-rural migration return using Harris and Tadaros' model show that Chinese government, by increasing taxes on pollutions generated by urban industrial units, raised the cost of production and cut production and wages, which in turn accelerated migration urban-rural migration. On the other hand, Cromartie, Reichert & Arthun. (2015) in their research on factors influencing the return of former residents to rural communities using a semi-structured and open-ended interview concluded that migrants returning to the US put into action the skills and experiences acquired to secure their business and leadership in rural communities. Reichert, Cromartie & Arthun (2014) explored the impact of return migration on US rural communities using the qualitative approach (interview). According to their results, entrepreneurial activities of many returning immigrants in the United States have improved the employment base and have expanded the existing services which has led to the growth of the rural economy, with decisions related to social relations creating a civic commitment for them. Moreover, the findings of Démurger & Hui Xu (2011) in their paper "Return of migrants: The rise of new entrepreneurs in China's village" using a questionnaire and interviews reveal that (1) return migration helps revive rural economic and poverty alleviation in less developed areas of China; and (2) capital and experience accumulated during migration are the main drivers of promotion in rural entrepreneurship. Hence, cutting the bureaucracy to spur immigrants into investing and supporting the creation and development of small businesses in the regions is an effective policy. Gomez (2011), in his analysis of the complexity of rural development theory in Europe, presents an effective approach for preventing rural migration to the city in keeping with the implementation of rural development projects by exploiting indigenous characteristics. ErdönmezI, Cihan, Özden, & Sezgin (2009) in their study titled, "The relationship between rural development and urban migration projects: The Quikent Project in Turkey" used interviews and Chi-square analysis to explore the effect of the project on decreeing rural residents' desire for city migration and boosting the motivation of urban migrants to return to their villages. The findings of Ebrahimi's research (2016) on explaining the status of return migration in the reconstruction of rural areas in the north of Ardebil province using library method and document analysis suggested that return migration propels economic activities in indigenous jobs with the adoption of new technology raising awareness of the ruralers and contributing to the thriving of rural and entrepreneurship. Jomepour and Alibabaei (2016) in their study "Process and pattern of return rural migration and its determinants (Case study: Hajilo District - Kabudarahang County) used descriptive and inferential statistics, with their results demonstrating that a higher level of development

in rural areas and participation of the ruralers coupled with locally-produced goods would accelerate human resource growth in the rural areas.

Accordingly, experiences can be divided into four categories: 1. An overview of the causes and effects of the return migration 2. A detailed analysis of the economic, social, and cultural dimensions of return migration; 3. Proposing a strategy and examining its impact on return migration, and 4. Evaluation of ecological and local potentials of rural areas. The current research intends to draw on the attractions and ecosystem capacities of Semirom to plan for the return migration given the paucity of any research on this subject.

2.5 Operational experiences

The following is a list of operational experiences and examples of successful return migration worldwide:

Table 1. Operational experiences and examples of successful return migration

Project Title	Goals	Achievement	Researchers
SME Project in Romani	Improved access to money transfer in rural village and creation of new investment channel for immigrants	Highlighting an entrepreneurial approach and creating private and public partnerships	(Ferri and Rainero,2010 : 7-46)
Grand Shandu Eco-Village System (GSES) in China	Rural development to achieve local sustainability	Green construction, relations management and empowering local culture	(Yuliastuti, 2017: 3)
Erzincan- Sivas rural development project	Supporting small-sized family enterprises	Improving agricultural infrastructure and rural standards and increasing income level	(Kazemi Sani Ataullah,2015 : 158-161)
Future Path of Malaysia: Malaysia's 1990-2020 vision document	Rural industrialization, agricultural and food development and integrated rural development	Export expansion, agricultural and human development, banking system development and tourism development	(Azami & Razvani, 2008: 76-81).
Industrial development policy (import of machinery for stone crushing factories and industrial greenhouses in rural areas)	Encouraging migrant to return to rural areas and create job opportunities in Iran	Creating more than 650 job opportunities in villages, diminishing the process of rural labor migration to major cities	(Naderi, 2011 : 11)

3. Research Methodology

3.1 Geographical Scope of the Research

Semirom county is located in southwest of Isfahan province with geographical coordinates of 51 degrees 16 minutes to 58 minutes east longitude and 30 degrees 43 minutes to 31 degrees 51 minutes north latitude with an average altitude of 2400 meters above sea level. It consists of 4 cities, 4 districts, and 6 villages covering an area of 5274 km^2, which is surrounded by Shahre- Reza city in the northeast, Dehaghan in the north, Fars province in the southeast and south, Kohgiluyeh and Boyer Ahmad province in the west and northwest and Chaharmahal and Bakhtiari province in the west and northwest Design and Development (2015). The climate of Semirom is temperate and mountainous with pristine tourist attractions and natural resources

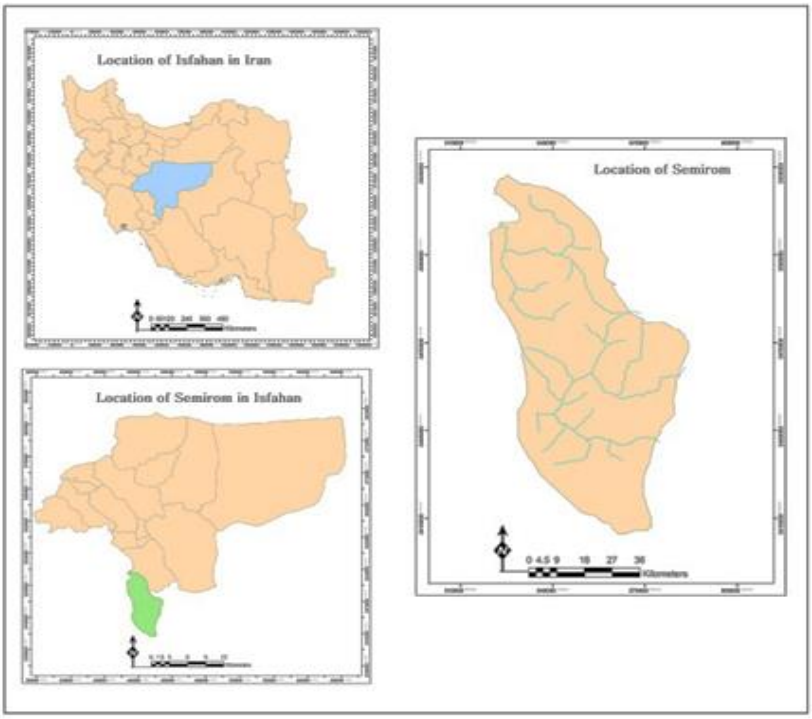

Figure 2. Location of Semirom
(Source: https://gisman.ir/download-iran-shapefiles/)

3.2. Methodology

An applied research with a descriptive-analytical method has been adopted. The study population consisted of people of Semirom (n=53672) and relevant authorities. Using the sample size formula for the finite population (confidence interval), a sample of 138 residents and 30 officials (municipally, governor, Agriculture Jihad, electricity, cultural heritage, environment) were randomly selected.

In order to evaluate the content validity of the questionnaire after developing the initial questionnaire, the feedbacks and suggestions of the professors and experts were taken into account. The calculated Cronbach's alpha was 0.765 for environmental, 0.842 for social, 0.840 for economic, and 0.958 for managerial indices, which reflects the reliability of the indices and high correlation of items. To achieve the goals of the study, given the theoretical framework and researchers' knowledge of Semirom county, data were collected by distributing questionnaires among people and conducting interviews with authorities. Data analysis was performed using both quantitative and qualitative methods. Inferential analysis was conducted using one-sample *t*-test in SPSS (quantitative section) and content analysis was carried out through interview by the ATLAS.ti software (qualitative) section. (Figure 7)

Based on the analysis, internal (strengths and weaknesses) and external (opportunity and threat) factors were identified and hybrid strategies were formulated. Then, based on expert feedbacks and EI matrices, one of the hybrid strategies was selected. Moreover, strengths, opportunities, aspirations, and results were identified. The stakeholders were chosen by snowball sampling method to form SOAR matrix.

Finally, in order to adjust and prioritize strategies, the QSPM quantitative matrix was applied in keeping with the experts' opinions to determine the relative effectiveness of strategies. To do so, the hybrid strategy adopted in the previous steps was prioritized based on a positive approach derived from the SOAR matrix. The findings are extracted to shed light on the theoretical model.

Given the purpose of the research, indicators of sustainable rural development, return migration and ecosystem were used and summarized in three environmental, economic, and socio-cultural dimensions (Table 1).

4. Research Findings

A questionnaire was designed to measure the residents' satisfaction with the situation of

Semirom county using the SPSS. For each index, a score of 1 to 5 was considered and the mean value of indices were defined in confidence interval of 3. Thus, values below this range indicated the least satisfaction and values above this range suggested the highest satisfaction. To generalize the results, we used one-sample *t*-test. If the significance of the test is less than 0.05, the sample results could be generalized to the population with a 95% probability.

Table 2. Dimensions and indicators of research
(Source: Research findings, 2019)

Dimension	Indices	Variables	Researchers
Environmental	Environment	Climate and weather - soil, water - forest, pastures	(Nouri & Nowrouzi ,2016 :129) (Poursadeghi, 2014:7)
	Landscape	Natural attractions - artificial tissue and body	
	Risks	Managing the risks and security of the people Natural hazards (floods, earthquakes) Artificial hazards (war)	(Nouri & Nowrouzi ,2016 :129)
Economic	Income and Cost	Income Diversification Cost of Living Allocating part of your income for entertainment	(Abdollahi, 2016:4) (Afrakhteh et al, 2016:92) (Ghasemi et al, 2014:30) (Manafi Azar et al, 2017:187) (Paparusso & Ambrosetti, 2017:3) (Nouri & Nowrouzi ,2016 :129)
	Occupation	Agricultural activities - Gardening activities - Industries and mines	(Ghasemi et al, 2014:30) (Manafi Azar et al, 2017:187) (Afrakhteh et al, 2016:92) (Nouri & Nowrouzi ,2016 :129) (Poursadeghi, 2014:7) (Abdollahi, 2016:4) (Hirvonen & Bie Lilleør , 2014:3) (Fleischer , 2013:10) (Cromartie et al ,2015:13) (Filipi et al , 2014 :17) (Wang & Fan ,2006:949) (Paparusso & Ambrosetti , 2017:3) (Liang , 2013:6) (Rabbani et al ,2011:88) (Qasemi Ardahai & Nobakht, 2016:54)
	Economic Credits	Investment - Entrepreneurship and tourism centers - Loans	
	Housing	Low-cost housing - Quantity of housing - Quality of housing - Government-leased housing, relatives - Inherited land	(Abdollahi, 2016:4) (Ghasemi et al, 2014:30) (Manafi Azar et al, 2017:187) (Rabbani et al ,2011:88) (Afrakhteh et al, 2016:92) (Qasemi Ardahai & Nobakht, 2016:54) (Paparusso & Ambrosetti , 2017:3) (Nouri & Nowrouzi ,2016 :129)
Socio-cultural	Social characteristics	- Age - Sex - Retirement - Education	(Manafi Azar et al, 2017:187) (Afrakhteh et al, 2016:92) (Qasemi Ardahai & Nobakht, 2016:54) (Nouri & Nowrouzi ,2016 :129) (Ghasemi et al, 2014:30) (Rabbani et al ,2011:88) (Hirvonen & Bie Lilleør , 2014:3) (Fleischer , 2013:10) (Filipi et al , 2014 :17) (Wang & Fan ,2006:949) (Paparusso & Ambrosetti , 2017:3) (Liang , 2013:6)
	Services and Facilities	Health, education, technology, welfare infrastructure, quantity and manner of distribution	(Nouri & Nowrouzi ,2016 :129) (Poursadeghi, 2014:7)
	Spatial belonging	Birth place and family -Connection with relatives	(Filipi et al , 2014 :17) (Cromartie et al ,2015:13) (Wang & Fan ,2006:949) (Paparusso & Ambrosetti , 2017:3) (Liang , 2013:6)
	Social - Cultural structure of the society	-Marriage - Following family traditions -Performance of political institutions, laws, culture, individual and social perceptions, social status	(Hirvonen & Bie Lilleør , 2014:3) (Fleischer , 2013:10) (Paparusso & Ambrosetti , 2017:3) (Cromartie et al ,2015:13) (Filipi et al , 2014 :17) (Ghasemi et al, 2014:30) (Manafi Azar et al, 2017:187) (Rabbani et al , 2011: 88) Afrakhteh et al, 2016:92) (Poursadeghi, 2014:7) (Nouri & Nowrouzi ,2016 :129) (Abdollahi, 2016:4) (Qasemi Ardahai & Nobakht, 2016:54)

sig	Mean sample	Criterion	index
0.000	2.07	Protection of forests and pastures	Enviorment
0.000	1.80	Sufficient irrigation water for agriculture and gardening	
0.000	3.01	Access to healthy drinking water	
0.000	3.10	Favorable climatic conditions for life	
0.000	2.83	Quality of surrounding environment	
0.000	4.1	Natural landscapes of the city	Landscape
0.003	2.74	Appropriateness of the tissue and physical structure of the city	
0.004	3.17	The quality and quantity of recreational attractions in the city	
0.000	2.86	The sense of security relative to the regional status against natural hazards	Hazards
0.000	2.22	The success of natural disasters management policies	
0.000	2.29	Suitability of health services	Services and facilities
0.000	2.33	Suitability of educational services	
0.000	2.04	Suitability of urban infrastructure	
0.000	1.87	Satisfaction with amenities	
0.035	2.80	Your social status compared to people you know	Sociocultural structure of the community
0.002	3.24	Sense of security in the community	
0.000	2.25	Equality and social justice	
0.000	2.07	Possibility of progress and growth in the city	
0.000	2.27	Affordable housing	Housing
0.003	2.75	Quality of housing	
0.000	2.93	Adequacy of housing to accommodate the population	
0.000	2.33	Reasonable living costs	Income and costs
0.000	2.19	Income status	
0.000	2.27	Possibility of allocating part of your income to family recreation	
0.000	2.22	Improvement of income status relative to costs in the future	
0.000	2.29	Desirable condition of agricultural activities in the region	Occupation
0.000	2.28	Suitability of gardening in the region	
0.000	2.20	Desirable condition of mines	
0.000	1.82	Satisfaction with the employment status in the city	

Figure 3. Situation of Semirom
(Source: Research findings, 2019)

Also, as noted in the residents' questionnaire, important factors influencing return migration were identified using *t*-test. Accordingly, in managerial dimension, passing laws related to supporting horticulture and granting concessions and banking facilities to local residents; in economic dimension, tourism attraction and job opportunities, and entrepreneurship; in the social dimension, factors promoting the quality of welfare services, the sense of belonging to the city

and relationships with relatives and acquaintances, and in the environmental dimension, fertile soil and adequate water sources had the greatest impact on the return of migrants.

sig	Mean sample	Criterion	Dimension
0.000	2.86	Natural and recreational attractions	Environment
0.000	3.25	Fertile soil and adequate water	
0.000	2.37	Retirement	Social
0.018	2.79	Education	
0.009	3.06	Improvement of services and amenities	
0.010	3.007	Sense of belonging to the city	
0.002	3.07	Connection with relatives and acquaintances	
0.001	2.83	Marriage and compliance with family traditions	
0.000	2.33	Cultural difference and rejection in other cities	
0.000	2.86	Improved housing quality	Economic
0.001	2.69	Investment in housing	
0.014	2.75	Financial and economic investment	
0.019	2.74	Granting facilities and low-interest loans to returned migrants	
0.000	3.04	Using tourism attractions for the prosperity of the city	
0.000	3.12	Creating job opportunities	
0.000	3.05	Entrepreneurship	
0.001	2.93	Performance of political and local institutions in relation to city development	Managerial
0.000	3.10	Passing laws to support horticulture and set up related industries	
0.000	3.03	State incentives such as granting concessions and banking facilities for migrant returning to the city	

Figure 4. Factors affecting return migration
(Source: Research findings, 2019)

Based on the results of interviews with local authorities, the most important factors affecting return migration are presented in Figure 5.

4.1. Formation of the Semirom evaluation matrix

The matrix in the question is derived from a strategic review of internal and external factors that assess the strengths, weaknesses, opportunities, and threats of the county based on historical, geographical, climatic, physical, social, and cultural contexts of Semirom by exploring its development and construction plans as well as the data derived from questionnaires distributed among local residents and interviews with authorities. In the next step, experts assign a value ranging from zero to one to each factor so that the sum of the coefficients will be equal to one. Also, the effect of each factor is assessed on the scale of 1 to 4 with 1 indicating a fundamental weakness, 2 an important or ordinary weakness, 3 a relative strength, and 4 a substantial strength. Then, to determine the final score of the coefficient (weight), each factor is multiplied by its score. The mean final score is 2.5 with any lower values indicating a weakness of both internal and external. However, values greater than 2.5 indicate the strength of factors meaning that the county has been able to exploit the existing strengths and opportunities to downgrade the effects of weaknesses and threats (Table 2)

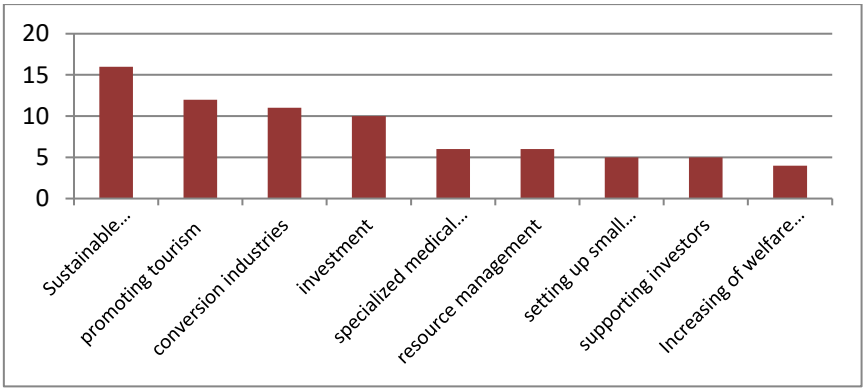

Figure 5. Factors affecting return migration
(Source: Research findings, 2019)

4.2. Matching the matrix of internal and external factors

At this stage, using the IE matrix to determine the appropriate strategy relative to internal and external factors, we can determine the order of priority for SO, WO, ST, WT strategies. According to the final score obtained from internal factor evaluation (IFE = 2.35) and external factor evaluation (EFE = 3.05) matrixes, the study area is within conservative strategies and the existing opportunities should be utilized to mitigate weaknesses in Semirom.

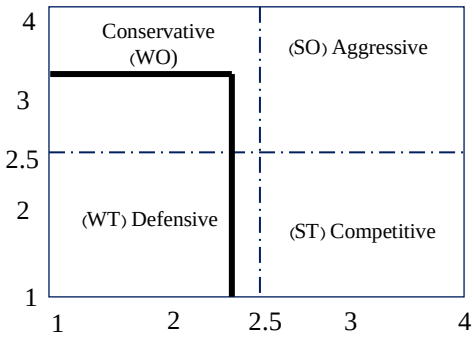

Figure 6. Matrix of the current status of return migration planning
(Source: Research findings, 2019)

4.3. Stage Three: Matching and Comparison

At first, the SOAR matrix analyzes strengths, opportunities, aspirations, and outcomes from a positive perspective, and then the QSPM technique is used to prioritize conservative strategies.

4.3.1. SOAR matrix

Positive approach (AI) in strategic planning rather than focusing on problems concentrates on reinforcing lucrative opportunities to address problems by exploiting potentials. Therefore, at this stage, using the SOAR matrix, the main strengths and opportunities are identified through stakeholders and participants. Instead of focusing on the negative points, a premium on stakeholders' aspirations and outcomes is placed. Finally, incentive and revision programs are selected to attain the desired results. Of course, this does not mean that weaknesses and threats are overlooked, but that they are re-shaped into positive and strong points. Hence, this technique will drive the county of Semirom forward by adopting a new approach, highlighting the strengths, opportunities, aspirations, and the participation of stakeholders.

4.3.2. Identification of stakeholders

Stakeholders identified in this study consist of residents of Semirom and relevant authorities. After the interview, each participant described his or her strengths, opportunities, and aspirations. During the meetings and discussions, stakeholders are asked to have a positive visualization of the desired future of the county and then present measurable and tangible results that could be obtained if the project is implemented.

4.3.3. Landscape of Semirom County

According to the SOAR matrix, the vision outlined for Semirom is as follows:

"In the next 10 years, the county of Semirom will be a lush, vibrant, and lively county that completely respects the rights of its citizens. It will be a major agricultural and tourism hub in the country due to its eco-system capacity. Equipped with all the necessary facilities and appropriate urban structure ae well as beautiful street furniture, it will provide a secure and suitable substrate for sustainable employment to accelerate the economic prosperity for the return of migrants."

4.3.4. Deriving goals from the vision

The following goals can be pursued in light of the outlined vision of the county.

Promoting tourism

Creating sustainable employment

Developing facilities and amenities

Boosting economic prosperity

Advancing agriculture and horticulture

Utilizing the gardening and horticulture capacity

Organizing urban and rural texture

Table 3 summarizes the strengths, opportunities, aspirations, and outcomes of the Semirom county expressed by the research stakeholders.

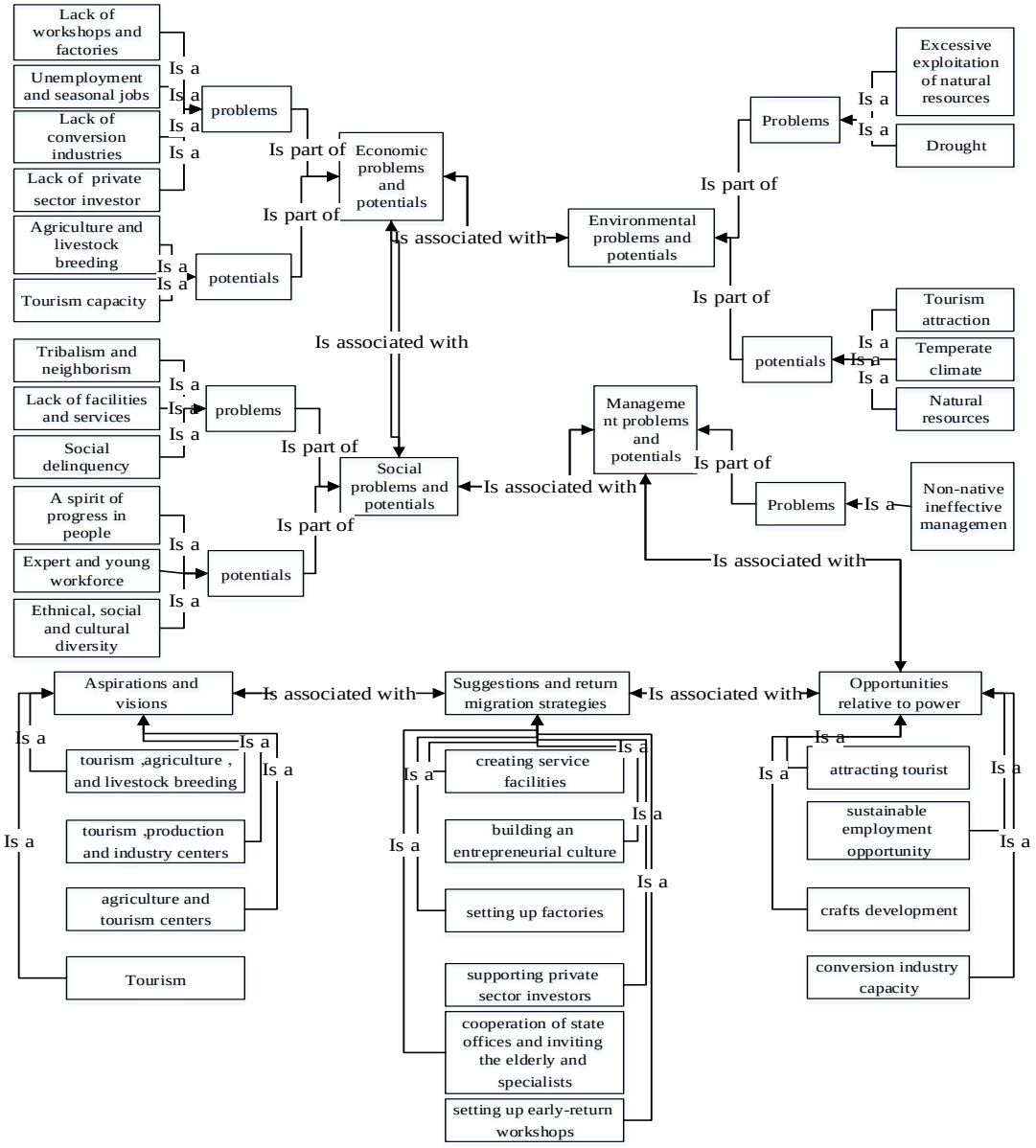

Figure 7. Qualitative analysis of the interviews with officials

(Source: Research findings, 2019)

Table 3. Internal Factor Evaluation (IFE) and External Factor Evaluation (EFE) Matrices of Semirom County
(Source: Research findings, 2019)

Strengths (A) and Weaknesses (W)	Weight	Score	Final score	Strengths (A) and Weaknesses (W)	Weight	Score	Final score
S_1: Rich and valuable soils and pastures	0/018	3/7	0/067	S_2: 1st rank of horticulture in the province	0/046	3/8	0/175
S_3: High percentage of literate people	0/009	3/2	0/029	S_4: Pristine natural landscapes	0/037	3/9	0/144
S_5 :1st rank of fish production in the province	0/009	3/3	0/030	S_6 :Wad handicrafts and hand-woven rugs recognized by the UNESCO	0/018	3/2	0/058
S_7 :Creating environmental protection zones	0/009	3/7	0/033	S_8: Availability of surface water, springs and rivers	0/056	3/6	0/202
S_9: A temperate climate with four seasons	0/028	3/2	0/090	S_{10} :Tourism and ecotourism attractions	0/065	3/9	0/253
S_{11} : A spirit of cooperation and empathy among people and passion for progress	0/009	3/5	0/031	S_{12}: A skilled, educated and young workforce	0/037	3/5	0/130
S_{13} :Cultural, social and ethnic diversity	0/009	3/3	0/030	S_{14}: Major source of drinking water for agricultural purposes	0/009	3/6	0/032
S_{15} :Existence of rich mineral resources and mines	0/018	3/5	0/063	S_{16} :Third rank of rainfall in province	0/009	3/3	0/030
S_{17} :Favorable status of wheat production	0/009	3	0/027	W_1 :Indiscriminate exploitation of natural resources	0/030	1/3	0/039
W_2: Drilling of unauthorized wells and destruction of underground resources	0/027	1/4	0/038	W_3: Over-grazing of livestock in agricultural pasture	0/010	1/8	0/018
W_4 :Wastewater infrastructure problems	0/018	2	0/036	W_5 :Lack of training facilities and welfare centers	0/066	1/5	0/099
W_6 : Lack of specialists in health care centers	0/071	1/6	0/114	W_7: Long distance from the capital of province with poor services	0/047	1/7	0/080
W_8: Non-recycling and separation of waste	0/010	2	0/02	W_9: Lack of cultural and sports facilities	0.029	1/7	0/049
W_{10} :Urban texture problems and disregard for city beautification	0/020	1/9	0/038	W_{11}: Low income and subsistence lifestyle of people	0/028	1/4	0/039
W_{12}: Social harms	0/017	1/8	0/031	W_{13}: Lack of factories and workshops to recruit young workers	0/042	1/4	0/059
W_{14}: Absence of recreational facilities such as parks	0/032	1/6	0/051	W_{15}:High unemployment rate and seasonal nature of agriculture jobs	0/049	1/2	0/059
W_{16} :Absence of conversion industries	0/034	1/3	0/044	W_{17}: Ethnicity and neighborhoodism	0/018	1/9	0/034
W_{18} : Inefficient and non-indigenous management	0.057	1/4	0/080	IFE	1		2/35
Opportunities (O) and Threats (T)	Weight	Score	Final score	Opportunities (O) and Threats (T)	Weight	Score	Final score
O_1 :Possibility of using rangelands to increase livestock breeding	0/043	3/5	0/151	O_2 :Gardener's willingness to form a cooperative and to promote horticulture and apple export	0/052	3/6	0/187
O_3 :Possibility of using indigenous specialist in tourism and conversion industry	0/032	3/8	0/122	O_4 :Investors' willingness to invest in industry and mining according to the regional	0/010	3/3	0/033

Strengths (A) and Weaknesses (W)	Weight	Score	Final score	Strengths (A) and Weaknesses (W)	Weight	Score	Final score
				capability			
O_5 :Possibility of developing greenhouse	0/026	3/8	0/099	O_6: Possibility of using apple trees for development of conversion industries	0/050	3/9	0/195
O_7 :Possibility of natural tourism development	0/069	3/7	0/255	O_8 :Authorities' willingness to grant credit for cultural development	0/027	3/1	0/084
O_9 :Possibility of transferring water from surrounding rivers to agriculture	0/022	3/4	0/075	O_{10} :Tendency of gardeners and organizations to industrialize agriculture, horticulture and irrigation	0/032	3/8	0/122
O_{11} :Urban management willingness to support investors to develop industry	0/008	3/6	0/029	O_{12} :Support of relevant organizations to improve the quality of urban, rural pathways and renovation of worn-out passages by allocating budget	0/027	3/3	0/089
O_{13} :Youth participation in the development of cultural affairs	0/016	3/3	0/053	O_{14}: Possibility of using waste land to provide educational, health services	0/103	3/6	0/371
O_{15} :Possibility of creating sustainable tourism employment due to natural attractions	0/078	3/8	0/296	O_{16}: Possibility of using medicinal herbs and handicrafts for tourism development	0/031	3//7	0/115
O_{17} :Urban management's willingness to allocate funds to establish an enterprise	0/045	3/6	0/162	O_{18}: Possibility of using young workforce in stone-cutting, tile and ceramic workshops	0/038	3/5	0/133
O_{19} :Possibility of attracting tourism by promoting attractions and culture	0/030	3/4	0/102	O_{20} :Possibility of rain-fed cultivation of wheat, barley and saffron	0/010	3	0/03
T1 :Situated in the most active earthquake zone	0/033	1/4	0/046	T_2 :Destruction of natural, fauna and flora resources	0/032	1/3	0/042
T_3 : Highest expatriate, evacuation with continued migration	0/090	1/3	0/117	T_4: Reduced income and migration of farmers due to lack of conversion industries	0/018	1/4	0/025
T_5 :Heavy dependence on market with continued single-product	0/025	1/5	0/038	T_6: Drought and rainfall	0/053	1/4	0/074
				EFE	1		3.05

Table 4. SOAR matrix

(Source: Research findings, 2019)

Strengths (S)	Opportunities (O)
S1: Rich and valuable soils and pastures	O1 :Possibility of using rangelands to increase livestock breeding
S2: 1st rank of horticulture in the province	O2 :Gardener's willingness to form a cooperative and to promote horticulture and apple export
S3: High percentage of literate people	O3 :Possibility of using indigenous specialist in tourism and conversion industry
S4: Pristine natural landscapes	O4 :Investors' willingness to invest in industry and mining according to the regional capability
S5 :1st rank of fish production in the province	O5 :Possibility of developing greenhouse
S6 :Wad handicrafts and hand-woven rugs recognized by the UNESCO	O6: Possibility of using apple trees for development of conversion industries
S7 :Creating environmental protection zones	O7 :Possibility of natural tourism development
S8: Availability of surface water, springs and rivers	O8 :Authorities' willingness to grant credit for cultural development
S9 : A temperate climate with four seasons	
S10 :Tourism and ecotourism attractions	
S11 : A spirit of cooperation and empathy among people and passion for progress	

Strengths (S)	Opportunities (O)
S12: A skilled, educated and young workforce S13 :Cultural, social and ethnic diversity S14: Major source of drinking water for agricultural purposes S15 :Existence of rich mineral resources and mines S16 :Third rank of rainfall in province S17 :Favorable status of wheat production	O9 :Possibility of transferring water from surrounding rivers to agriculture O10 :Tendency of gardeners and organizations to industrialize agriculture, horticulture and irrigation O11 :Urban management willingness to support investors to develop industry O12 :Support of relevant organizations to improve the quality of urban, rural pathways and renovation of worn-out passages by allocating budget O13 :Youth participation in the development of cultural affairs O14: Possibility of using waste land to provide educational, health services O15 :Possibility of creating sustainable tourism employment due to natural attractions O16: Possibility of using medicinal herbs and handicrafts for tourism development O17 :Urban management's willingness to allocate funds to establish an enterprise O18: Possibility of using young workforce in stone-cutting, tile and ceramic workshops O19 :Possibility of attracting tourism by promoting attractions and culture O20 :Possibility of rain-fed cultivation of wheat, barley and saffron
Aspirations (A)	Outcomes (R)
A_1: A tourism, industrial and manufacturing center A_2 :A major hub of agriculture and tourism A_3 :Tourism, agriculture and livestock breeding A_4 :A thriving county that attracts tourists A_5 : Tourism village A_6 : Creating a safe environment with proper employment A7 : Economic boom of the county as a tourism destination A_8 :Access to all necessary amenities and facilities A_9 :An appropriate urban structure with beautiful street furniture A_{10} : A green, vibrant, and dynamic county that respect citizenship rights	R_1: Establishing factories for converting apples into dried fruit, vinegar, concentrate, fruit juice, compote, etc. R_2 :Establishment of processing and packaging facilities for apple, wheat and barley R_3 :Establishing cold store for apple farmers R_4 :Construction of stone-cutting, tile and ceramic factories according to supply power of the region R_5: Modernizing horticulture using mechanical tools (increasing quantity and product quality R_6 :Increasing job efficiency from seasonal to permanent work by diversifying non-farm employment R_7 :Creation and thriving of tourism sites in rural areas R_8 :Supporting and providing a safe environment for investors R_9 :Changing and modernizing irrigation methods used in farms and gardens R_{10} :Improving the status of streets and the texture of rurales R_{11} :Providing services such as parks, nursing homes, airports and railways R_{12} :Improvement of educational facilities for academic studies and establishing state universities R_{13} :Equipping medical centers, hospitals and recruiting specialists R_{14} :Supervising the resources, natural pastures and other attractions R_{15} :Promoting an entrepreneurial culture R_{16} :Proper distribution of educational, health and green space services in the county R_{17} :Agricultural water and Human Resources Management by fostering knowledge-based agriculture and striking a balance between semi-arid lands and product type along with the recruitment of specialists R_{18} :Creating more cultural and artistic opportunities to raise public awareness and cultural knowledge of people

4.4. Strategic planning quantitative matrix

The Quantitative Strategic Planning Matrix (QSPM) is formulated to prioritize conservative strategies in order to plan the study area with respect to return migration indices. Selected strategies (at the top of the matrix) with respect to strengths, opportunities, aspirations, and outcomes (right column) derived from the SOAR model were analyzed based on the significance coefficient (second column) and the attractiveness score (next column) by the experts. Thus, each factor is measured by the desired strategy. Experts will assign a score of 1 to 4 (1 very low and 4 very high) based on the impact of each strategy, and if the selected factor does not influence the formulation or selection of the strategy, a score of zero will be assigned. Strategies are prioritized by multiplying the weight of each factor based on the attractiveness score and summing up the column numbers.The results of strategies evaluation reveal that "efficient management of tourism and environmental sites for proper utilization of natural resources" is the most important adaptive strategy for planning return migration to the county of Semirom. Sustainable employment strategies are also ranked second to sixth by creating conversion industries, providing amenities, setting up early return enterprises, agricultural industrialization, gardening and tackling road, and urban texture problems.

5. Discussion and conclusion

Return migration is a new and effective phenomenon. Given that migration from rural areas is driven by multiple factors such as job insecurity, unemployment, and poor quality of amenities supplied to local residents, a comprehensive planning along with effective strategies can influence the stay of local residents and motivate migrant to return to their homeland. Semirom county is one of the rural areas of Isfahan province the main economic structure of which is the production of apple as a single crop. However, the dwellers of this county have emigrated to larger cities due to problems such as low return derived from orchards, water scarcity, natural disasters, seasonal unemployment, lack of diverse job opportunities for young people, and poor quality of amenities to the extent that Semirom faces an imminent threat of evacuation.

This study aimed to develop a planning model for return migration. According to the research findings, the main ecosystem potentials in the county of Semirom, based on scores given by experts in the questionnaire, were tourist attractions (score= 0.253), availability of surface water, springs and rivers (score =0.220, first rank of horticulture in the province (score=175), pristine natural areas (score=0.144), and specialist and young labor force (score=0.30) in descending order of importance, respectively.

Also, the analysis of the questionnaire suggested that laws intended to promote horticulture and related industries as well as state incentive such as concessions and facilities from a managerial dimension; factors of working on tourism attractions to bring prosperity to the county, creating job opportunities, and entrepreneurship from an economic dimension; factors that improve the quality of amenities, sense of belonging to the county, contacts with relatives and acquaintances from a social dimension, and availability of sufficient water and soil from an environmental dimension had the greatest impact on the return of migrants. Therefore, it appears that proper exploitation of natural resources and tourism and the ecosystem capacity of the county can create an apt opportunity for sustainable employment. It requires efficient management to adopt novel approaches and a secure environment for the protection of investors entrepreneurs. In other words, paying higher attention to the potential of tourism can improve the quality of welfare facilities, infrastructure services and employment, which in turn can offer huge potentials for enhancing local residents' quality of life, their permanent stay, and ultimately the return of migrants.

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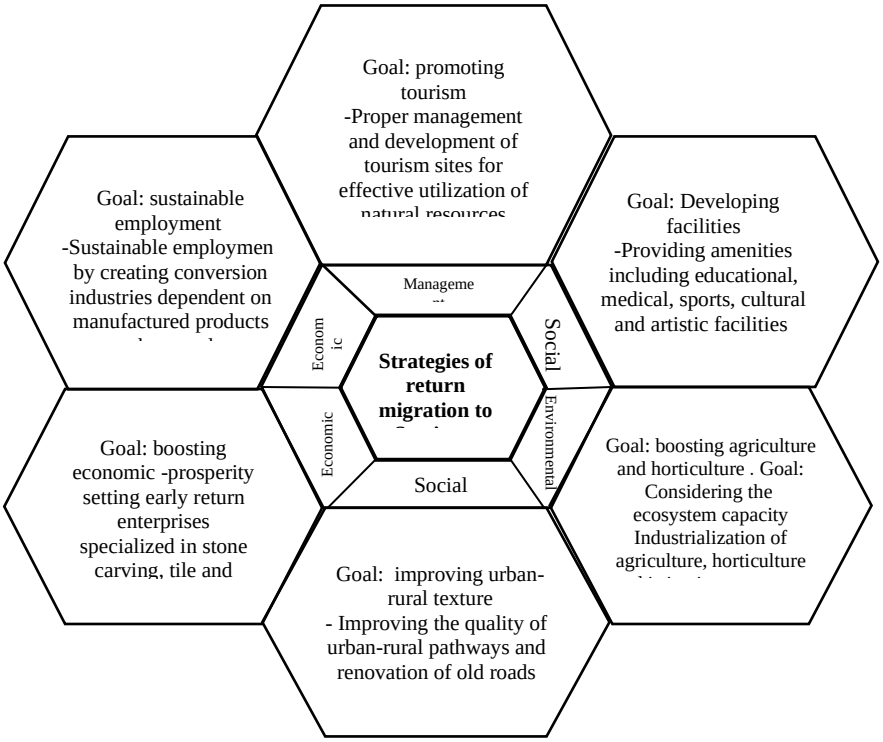

Figure 8. Return migration strategies
(Source: Research findings, 2019)

Table 5. Prioritization of WO strategies for Semirom
(Source: Research findings, 2019)

Priority	Conservative Strategies	Sum of strategy attractiveness scores
1	W_1O_7 :Proper management and development of tourism sites for effective utilization of natural resources	3/407
2	$W_{15}O_6$:Sustainable employment by creating conversion industries dependent on manufactured products such as apples	3/338
3	W_7O_{14} :Providing amenities including educational, medical, sports, cultural and artistic facilities to meet the needs of inhabitants	2/951
4	$W_{13}O_{18}$:Setting up early return enterprises specialized in stone carving, tile and ceramics to draw labor forces	2/867
5	W_2O_{10} :Industrialization of agriculture, horticulture and irrigation to prevent drilling of unauthorized wells and replenishment of groundwater	2/107
6	$W1_0O_{12}$:Improving the quality of urban-rural pathways and renovation of old roads	1/587

Table 6. Policy formulation from strategies
(Source: Research findings, 2019)

Goals	Strategies	Policies
Promotion of tourism	Proper management and development of tourism sites for appropriate utilization of natural resources	1. Holding orientation conferences and strategies for improving tourism and attracting tourists by urban authorities 2. Setting up meetings to raise residents' awareness of the benefits of tourism and to strengthen their participation 3. Education and building a culture that protects the environment and takes advantage of the tourism potentials 4. Distributing brochures to acquaint people with the historical sites and attractions in the area 5. Allocating incentives such as granting special concessions to capitalists to invest in tourism. 6. Recruiting experts to determine the capacity of the environment to alleviate possible damages 7. Formulating laws and regulations to hamper the destruction of natural pastures 8. Developing tourism infrastructure such as hotels, restaurants, tourism camps, etc. 9. Restoration and renovation of historical monuments 10. Use of historic houses as a tourist houses, restaurants or other tourist areas 11. Use of rural houses as camping sites
Creating Sustainable Employment	Providing sustainable employment by setting up conversion industries depending on produced goods, such as apples	1. Establishing a variety of economic activities such as mining, animal husbandry, poultry and aquaculture, natural and cultural tourism to create generate employment and income for residents 2- Setting up plants for conversion of dried fruit, vinegar, concentrate, fruit juice and compote. 3. Increasing farmers' technical skills by offering training at technical-vocational organizations 4- Creating a cold store to preserve crop farmers and prevent them from rotting 5- Providing processing and packaging facilities for agricultural products
Improvement of Amenities	Providing educational, therapeutic, sport, cultural and artistic facilities to meet the needs of residents	1- Balanced distribution of amenities and welfare services in the county 2. Equipping medical centers and hospitals with specialist facilities and physicians 3. Improvement of educational services in rurales for academic achievement and setting up state university 4. Appropriate distribution of green space and creation of local parks 5. Creating more cultural and artistic opportunities to raise public awareness and build a new culture 6. Establishing a nursing home, building an airport and a railway
Fostering Economic Prosperity	Setting up early-return stone-cutting, tiling and ceramics workshop by recruiting laborers	1- Supporting investors by offering incentive policies like granting low-interest loans 2- Holding training classes to raise the level of expertise 3. Construction of stone-cutting, tile and ceramic factories relative to the supply power of the region
1. Promotion of agriculture and horticulture 2. Considering the ecosystem capacity	Industrialization of agriculture, horticulture and irrigation to prevent drilling of unauthorized wells and replenishment of underground aquifers.	1- Changing and modernization of garden irrigation methods 2. Mechanization of horticulture and agriculture 3- Management of agricultural water resources, especially drinking water, through knowledge-based agriculture and striking a balance between semi-arid lands and crop type along with the recruitment of experts 4- Establishing controlling and supervisory bodies by relevant authorities to protect natural resources 5. Training of new agricultural methods in order to improve the quality and quantity of agricultural products 6- Holding training classes to engage ruralers in tackling and preventing drought.

Goals	Strategies	Policies
		7. Optimizing wheat production by expanding cultivation area 8- Creating suitable water transfer routes by constructing isolated canals, pipelines, etc. 9- Supporting agricultural product insurance fund
Organizing Urban and Rural Textures	Improving the quality of urban-rural roads and renovating worn-out textures	1- Improving road infrastructure and pavement 2. Increasing the width of sidewalks and improving their quality in the central part of the city Expanding the width of the passages in the northern part of the city 4. Prevention and management of disasters and timely relief services using new technologies 5. Granting loans to inspire homeowners to renovate buildings for consolidation 6- Granting incentives to people who intend to rebuild buildings with worn-out texture

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تحلیل ظرفیت زیست بوم شهرستان سمیرم در راستای برنامه ریزی مهاجرت معکوس

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چکیده مبسوط

۱. مقدمه

مهاجرت پدیده ای جهانی است کـه جنـبش هـای بـ ین المللـ ی در داخل و خارج از هر کشور را شامل می شـود کـه در کشـورهای در حال توسعه بیشـتر لیـ ن مهـاجرت هـا، داخلـ ی اسـت. مهـاجرت از روستابه شهر به وسیله عوامل مختلف اجتماعی، اقتصادی، سیاسـ ی، فرهنگی و محیط ی ایجـاد مـ ی شـود کـه چشـم انـداز یـ افتن کـار مهمترین دلیل می باشد و باعث مشکلات بسیاری از جمله در ایران شده است. شهرستان سمیرم یکی از شهرستان های مهـاجر فرسـت استان اصفهان برای نخستین بار بیانگر مهاجرت معکوس است. لـذا از گام های اساسی توسعه در هر کشور و ناحیه، شناسایی و استفاده بهینه از منابع و ظرفیت های طبیعی موجود است کـه تدوین برنامه ریزی های اصولی برای بالفعل کردن توانمندی‌ها، ضرورت اصلی برای نیل به توسعه پایدار مـ ی‌باشد . بنـابراین پـرداختن بـه مبحـث مهاجرت معکوس به عنوان راهگشای مشکلات مهاجرت از روسـتاها ضروری است. هدف اصلی این پژوهش، تدوین الگوی برنامـه ریـ زی مطلوب در راستای تحقق مهاجرت معکـوس در شهرسـتان سـمیرم است که می توان با شناسایی و تقویت توان های زیسـت بـومی آن، مکانی پایدار در جهت رفاه ساکنان بومی شود.

۲. مبانی نظری تحقیق

مهاجرت معکوس به عنوان "وضعیتی است که مهاجران پس از مدت زمان قابل توجهی در خارج از کشور(مقصد)، بر اساس اراده خود بـه کشور(مبدأ) خود باز می گردند". در واقع این پدیده "نتیجـه ایجـاد جذابیت در روستاها می باشد که از طریق ایجاد درآمـد در فعالیـ ت هایی مانند دامداری یا کشاورزی، بازنشستگی و گاهی اوقات ناشی از مشکلات زندگی شهری پدید می آید". از طرفی زیست بوم با توجـه به زمینه ی اجتماعی و شرایط اقلیمی هـر منطقـه قابـل شناسـایی است لذا سیاست برنامه هـای توسـعه روسـتایی بـه عنـوان راهبـرد کاهش مهاجرت معرفی شده است که افزایش فرصت های شـغلی و درآمدی می تواند مهـاجرت از منـاطق روسـتایی را کـاهش دهـد و مهاجران بالقوه را حفظ کند.توسعه روستایی فرایند هدفمنـد بهبـود شـرایط زنـدگی مـردم روسـتایی در مجموعـه ی ابعـاد محیطـی ، اجتماعی و اقتصادی و افزایش توانمندی آنان در بهره گیری بهینه از منابع خود در قلمرو روستا است و راهبرد توسـعه یکپارچـه و همـه جانبه روستایی یکی از راهبردهای آن می باشد.

۳. روش‌شناسی تحقیق

روش پژوهش توصیفی- تحلیلی و از نوع کاربردی اسـت. جامعـه ی آماری ساکنان شهرستان سمیرم (۵۳۶۷۲ نفر) و مسـئولین مـرتبط است که با استفاده از فرمـول حجـم نمونـه بـرای میـ انگین جامعـه متناهی به روش دقت (فاصله اطمینـان)، تعـداد نمونـه ۱۳۸نفـر از ساکنان و ۳۰ نفر از مسئولین(ادارات شـهرداری، فرمانـداری، جهـاد کشاورزی، برق،میراث فرهنگی، محیط زیست) به طـور تصـادفی بـه صورت هدفمند انتخاب شدند. بـه منظورسـنجش روایـی محتـوایی پرسشنامه پس ازتدوین پرسشنامه ابتدایی، نظـرات و پیشـنهادهای اساتید و کارشناسان اعمال گردیده اسـت. همچنـ ین مقـدار آلفـای کرونباخ بـرای شـاخص هـای زیسـت محیط ی ۰/۷۶۵ ، اجتمـاعی ۰/۸۴۲ ، اقتصـادی ۰/۸۴۰ و مـدیریتی ۰/۹۵۸ بـه دسـت آمـد کـه گویای پایایی شاخص‌ها و همبستگی بسیار پرسش‌ها می‌باشد.

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برای دستیابی به اهداف پـژوهش بـا توجـه بـه چـارچوب نظـری و شناخت شهرستان سمیرم از طریق پرسشنامه مـردم و مصـاحبه بـا مسئولین اطلاعات جمع آوری و داده ها به دو روش کم ی و کیف ی تحلیل شد. تحلیل آمار استنباطی بـا آزمـون T تـک نمونـه ای بـه کمک نرم افزار SPSS به صورت کمی و تحلیل محتوا مصـاحبه بـه کمک نرم افزار ATLAS.ti به صورت کیفی صورت گرفته است. با توجـه بـه لیـ ن تحلیـ ل هـا عوامـل داخلـ ی (قـوت و ضـعف) و خارجی(فرصت،تهدید) تعیین و راهبردهای ترکیبی تدوین شد که با توجـه بـه نظـرات کارشناسـان و مـاتریس EI یک ی از راهبردهـای ترکیبـ ی انتخـاب شـد.همچنین بـرای تشـکیل مـاتریس SOAR؛ ذینفعان با روش گلوله برفی، چشم انداز، نقاط قوت، فرصت، آرمان و نتایج شناسایی شدند.

۴. یافته‌های تحقیق

یافته‌های پژوهش بـا توجـه بـه پرسشـنامه حـاکی از آن اسـت کـه مهمترین پتانسیل‌های شهرستان سمیرم بر اساس امتیازنهـایی داده شده توسط کارشناسان؛ وجود جاذبه‌های گردشگری با امتیاز نهـایی ۰/۲۵۳ در رتبه اول قرار دارد. همچنین با توجه به تحلیل پرسشنامه در بعد مدیریتی؛ عوامل قوانین مصوب مـرتبط بـا تقویـ ت باغـداری وایجاد صنایع مرتبط و سیاست های تشویقی دولـت ماننـد اعطـای امتیـ از و تسـهیلات، در بعـد اقتصـادی؛ عوامـل اسـتفاده از جاذبـه گردشگری و ایجاد فرصت‌های شغلی و کارآفرینی، در بعد اجتماعی؛ عوامل ارتقای کیفیت خدمات رفاهی، در بعد زیست محیطی؛ عامـل وجـود آب و خـاک مناسـب و کـافی بیشـترین تأثیرگـذاری را در بازگشت مهاجرین دارند. بر اساس نمره نهایی ماتریس ارزیابی عوامل داخلـی (IFE= ۲/۳۵) و خـارجی(EFE= ۳/۰۵) ، محـدوده در موقعیت استراتژی هـای محافظـه کارانـه قـرار دارد. نتـایج ارزیـ ابی راهبردها در مدل SOAR بیانگر آن است کـه "مـدیریت صـحیح فضاهای گردشگری و زیست محیطی جهت بهره برداری مناسـب از منابع طبیعی" به عنوان مهم ترین راهبرد انطباقی به منظور برنامـه ریزی در راستای مهاجرت معکوس به شهرستان سمیرم در اولویـ ت می‌باشد. راهبردهای تأمین اشتغال پایدار با ایجـاد صـنایع تبـدیلی، ایجاد امکانات رفاهی، ایجاد کارگـاه هـای زودبـازده، صـنعتی شـدن کشاورزی، باغداری و رسیدگی به مشکلات جاده ها و بافت نیـ ز در اولویت دوم تا ششم قرار گرفته است.

۵. بحث و نتیجه گیری

شهرستان سمیرم یکی از فضاهای روستایی استان اصفهان است که عمده ترین ساختار اقتصادی آن ، تولید سیب درختی به عنوان تک محصول می باشد. اما ساکنان شهرستان به دلیل وجود مشکلاتی از جمله عدم بازدهی مناسب باغ هـا ، کمبـود آب ، حـوادث طبیعـ ی ، بیکاری فصلی ، عدم وجود فرصت های شغلی متنوع برای جوانـان و کمبود وکیفیت پایین خدمات رفاهی به شهرهای بزرگتـر مهـاجرت کرده اند به طوری که شهرستان با خطر خالی شدن جمعیت روبـرو است. این مطالعه با هدف تـدوین الگـوی برنامـه‌ریـزی در راسـتای تحقق مهاجرت معکوس انجام شده اسـت. پیشـنهاد مـ ی شـود بـا استفاده صحیح از منابع طبیعی و گردشگری و با توجه بـه ظرفیـ ت زیست بوم ، فرصتی برای اشتغال پایدار فراهم شـود کـه لازم اسـت مدیریتی باکفایت روش های نوین را به کـار گیـ رد و بسـتری امـن برای حمایت از سرمایه گـذاران و ایجـاد فرصـت کـارآفرینی فـراهم نماید. به عبارتی دیگر توجه به پتانسیل گردشگری خود زمینه ساز ارتقای کیفیت خدمات رفاهی و زیرساختی و ایجاد اشتغال می باشد که در صورت موفقیت باعث ارتقای کیفیت زندگی ساکنان محلـ ی و ماندگاری آن ها و نهایتاً بازگشت مهاجرین خواهد شد.

کلیدواژه‌ها: مهاجرت، مهاجرت معکوس، زیست بوم، شهرستان سمیرم.

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A Local-Spatial Analysis of the Impact of Livelihood Capitals on the Formation of Social Capital in Rural Settlements (Case Study: Bojnourd County)

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Abstract

Purpose- The study of social capital in the context of location/space is a new approach that is dominated by the science of geography, and is seen as a way of distinguishing it from other sciences. The purpose of this study was to evaluate the impact of livelihood capitals on social capital in rural areas of Bojnourd County.

Design/methodology/approach- This study was a fundamental research, conducted in a descriptive-analytical method. Documentary methods and field works have been employed to collect the data. The population consisted of 22 villages with more than 20 households in Bojnourd County, selected from various population classes and distances from Bojnourd. Using Cochran formula and random sampling method, 298 households were selected from a total of 4849 households in the rural areas of the study area. Partial least squares technique and Smart PLS software were used to test the conceptual model of the research and the impact of livelihood capitals on social capital. Geographically Weighted Regression (GWR) was used to evaluate the model efficiency at Bojnourd County level.

Findings- According to the results, the coefficients of *T* among the main variables of the study were above 2.58, which means the relationship is significant and direct. Thus, local-spatial factors have a significant and positive effect on social capital. Based on total coefficients, human capital with the coefficient of 0.348 and physical capital with the coefficient of 0.136 respectively had the most and the least effect on social capital. The results of spatial analysis using GWR showed that the impact coefficient of livelihood capitals on social capital was highest in the villages of Atrabad Olia and Gharajeh, and in total about 45% of villages in the study area had an impact coefficient of 0.90 to 0.91.

Research limitations/implications- As the study of livelihood capitals and analysis of their relationship with social capital is a fundamental challenge in achieving sustainable rural development that is missing in current studies, it is recommended that future studies pay more attention to social capital and the impact of livelihood capitals on its creation and rural development.

Practical implications- Rural areas suffer from the lack of social capital, which is one of the most important types of development capital required to achieve sustainable rural development. Thus, enhancing the social capital and informing the villagers about the value and importance of local-spatial factors and the material and non-material capitals available in rural areas should be on the agenda of rural development researchers and planners.

Key words- Social capital, Livelihood capitals, Structural equations, Geographically weighted regression, Bojnourd County.
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1. Introduction

Social capital is a set of valuable resources that are potentially available in the social relations of the first, and secondary groups, and social organization of a community. Today, social capital is viewed as one of the components of a nation's wealth and sustainable development, one of the tools of community capacity building, a measure to prevent and reduce social issues and a factor in the success of social welfare programs and the promotion of social and personal health (Heidari Sareban, 2014, cited in Tawalaee and Sharifian Sani, 2005). Despite the issues identified in defining social capital, it cannot be denied that social capital thought is an approach to eradicate poverty and increase household welfare in underprivileged areas, especially in poor rural areas of developing countries (Mahmoudi & Roknioddin Eftekhari, 2017); therefore, to have an understanding of this issue is particularly important for gaining an insight into the link between social capital and rural household welfare, not only because of the concepts discussed in relation to local/rural community development, but also to improve a useful conceptual framework for creating more effective strategies in the development of the local/rural community (Moridsadat, Zare Khalili & Farhadi, 2017). The social capital of a village represents part of the human potentials of that village, and any plan for development needs to explore the social capital of the area. Given the effect of social capital on rural development, there is no doubt that rural communities, like any other communities, develop more significantly through trust and partnership.

On the other hand, the study of social capital in the context of location/space is a new approach that is dominated by the science of geography and is regarded as a distinction point with other sciences. Some sociologists have pointed out in their studies that social relationships are built in space. In other words, a society is essentially constructed spatially, and the spatial organization of the society plays a role in how a society operates. Thus, spatial analysis of the social capital as a gap in the study of this concept led us not only examine the quantity and quality of social capital, but also conduct a local-spatial analysis, and rank it in rural areas as a landmark in the study of this concept. Therefore, location and space are effective in the quality and quantity of the social capital, and development would be inefficient unless geographical dimensions of social capital are taken into account. As mentioned above, rural sustainable livelihood models include five key components of human, social, natural, physical, and financial capitals whose improvement are required to achieve sustainable livelihoods (Abdollahzadeh, Salehi, Sharifzadeh & Khajeh SHahkohi, 2015); in this respect, it can be said that in the absence of social capital, other capitals lose their effectiveness and without social capital, pursuing the paths of cultural and economic development would be quite difficult. Social capital is a central principle for achieving development (Heidari Sareban, 2014).

Therefore, this study investigates the status of social capital in rural settlements of Bojnourd County and the impact of livelihood capitals on the formation of social capital in the sample villages. In addition, the status of social capital and the amount of livelihood capitals of each village along with the ranking of the villages have been examined.

The main question of this study is how the livelihood capitals (human capital, natural capital, physical capital, economic capital and institutional-managerial capital) influenced the formation of rural social capital in the study area, and what the local-spatial differences are at the regional level.

2. Research Theoretical Literature

Social capital consists of two words: social and capital. These two words indicate that, first of all, this concept has a generative nature, and secondly, it is not an individual one (Alibeigi, Aliabadi & Geravandi, 2012). The term social capital was first coined by Alfred Marshall in 1890 (Eynali, Farahani & Jafari, 2014). However, the concept of social capital in its current sense was, for the first time, used by Lida G. Hanifan in 1920 (Mousavi, Hasani & Manouchehri, 2012). After Hanifan, the idea of social capital disappeared for some decades; however, it was re-introduced in the 1950s by a group of Canadian sociologists and in the 1960s by a theorist known as Homans (Barati & Yazdanpanah Shahabadi, 2011). Jane Jacobs also coined the term social capital in 1961 in her classic work "*The Death and Life of Great American Cities*" (Fukuyama, 2000). The first unified explanation for social capital was made by Pierre Bourdieu in 1972 (Salari Sardari, Beyranvandzadeh & Alizadeh, 2014), and in the

1980s the term was used in a broader sense. Robert Putnam, an American political scientist, was the next who had strong discussions on social capital and civil society, both in Italy and the US (Fukuyama, 2000).

There are many theories and approaches to social capital some of which are reviewed in the following lines:

Pierre Bourdieu: In Bourdieu's view, social capital is a kind of social product that comes from the social interaction. His focus was on individual participation in social networks where his participation gives access to the resources and facilities of a group.

Francis Fukuyama: He placed a strong emphasis on informal norms and values in a group. In his view, the norms that produce a capital should, in principle, consist of virtues such as honesty, commitment, and two-way communications.

Robert Putnam: He emphasized the concept of trust, and views social capital as a set of concepts such as trust, norms, and networks that contribute to the optimal partnership and participation of members of a community and ultimately provide their mutual interests (Abolhassan Tanhaee & Hazrati Som'e, 2009).

A review of the existing literature on social capital shows that following components and indicators can be examined in this context:

1. Social participation: It implies the development of inter-group relationships in the form of voluntary associations, clubs, unions and groups that usually are local and non-governmental in nature, whose aims include encouraging popular participation and engaging people in different social processes in the form of social policies (Heidari Mokarar, Sheybani Shad, Mohammad zaieerad & Ghader Shafagh, 2015).

2. Social cohesion: It is a kind of feeling of communication and engagement with others; it means a sense of mutual responsibility between some groups of people.

3. Social trust: It is an essential prerequisite for social capital to occur; as an inherent component, it provides the norms that are created as a result of social networks (Field, 2007). Social trust is based largely on the stereotypes and perceptions that individuals have about each other and entities associated with their social life (Kiani & Mirzapour, 2009).

4. Social awareness: Concepts related to the component of knowledge and information on social capital at the rural level are defined according to the existing definitions of knowledge centrality as applied and organized information for solving problems.

5. Social networks: People's social relationships and their interactions with one another constitute the most fundamental component of social capital, and networks are the origin of two other components of social capital, namely trust and partnership norms (Ebrahimzadeh & Zareh, 2014).

A prerequisite for the development of any society, especially rural communities, is the general development of warm relationships, social cohesion, social participation and most importantly, the mutual trust (between individuals, communities, and the government) which are the components of social capital understood in the context of location and space. In this approach, it is essential to understand the status of individuals' funds, the strategies they adopt to make their livings, the outcomes they expect, and the vulnerable context in which they operate. The capitals are an essential component of the livelihood of the people, especially the poor. People need such various capitals to achieve their defined goals (Jomepour & Kiomarth, 2012). Rural sustainable livelihood models include 5 main components of human, natural, physical, financial, and institutional-managerial capitals whose improvement are essential for achieving social capital (Abdollahzadeh et al., 2015). Therefore, in the present study, livelihood capitals consist of 5 main components of financial, human, institutional, natural and physical capitals, which are described below:

1. Natural capital refers to natural resources that can be used by people to achieve their livelihood goals. For example, land, water, and forest are natural resources; natural capital is a term used for the inventory of natural resources, and flows of useful resources and services (such as land, water, forests, air quality, erosion protection, degree of variation, rate of changes, etc.), are derived from it for livelihood (Kollmair & Gamper, 2002; Barimani, Rasti, Reiesi & Mohammadzadeh, 2016).

2. Physical capital refers to essential infrastructures such as roads and waterways, production tools, capital goods (including machinery such as tractors) needed to support livelihoods; Physical capital may refer to a built environment that includes residential houses, public places,

industries, bridges, dams, harbors, and shelters. This capital also includes vital facilities such as electricity, water, telephone and gas (Sojasi Gheidari, Sadeghloo & Shakorifard, 2016, cited in Nakiyimba, 2014).

3. Financial capital refers to the financial resources (such as cash, bank accounts, current assets, pensions, allowances, and remittances) available to maintain current livelihoods or improve people's livelihoods. These assets may be the most important and most accessible asset for the poor; therefore, financial capital refers to the economic resources that people use to make a living. These resources include savings, income, investments, and credit (Sojasi Gheidari et al., 2016).

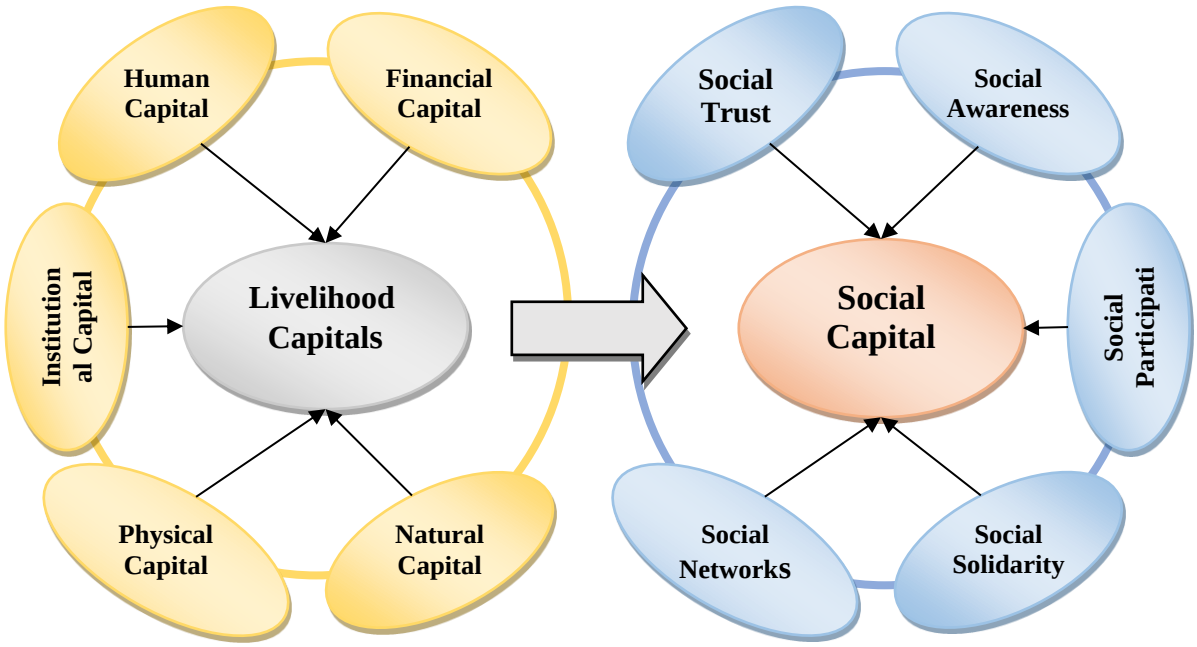

Figure1. Conceptual model of the structural function of the effect of livelihood capitals and its components on the behavior of rural social capital

(Source: Research Finding, 2019)

4. Human capital refers to skills, good health and the ability to work that totally make it possible for individuals to pursue different livelihood strategies and activities and achieve their livelihoods; human capital is a form of capital that is acquired by changing individuals to get skills and abilities, and enable the individuals to behave in new ways. Thus, human capital may include the labor force, health, skills and knowledge of the individuals (Karami Dehkordi & Ansari, 2012; Mphande, 2016).

5. In institutional-managerial capital, management of resources and capitals has two essential principles: government and people. The government has an important role to play in facilitating partnerships by providing infrastructure, laws, and funding. (Beheshti Seresht, Samari & Mirdamadi, 2009).

There is an extensive literature on social capital, which has looked into the subject from different perspectives. Here goes a summary of some recent research on social capital:

Prayitno, Matsushima, Jeong & Kobayashi (2014) used questions such as community feeling, empowerment, neighborly behaviors, and participation in social activities to measure the level of social capital, and the results showed that 'sense of place' and 'social sense' and some demographic characteristics significantly affect migrant workers. In addition, people whose friends and relatives have already migrated are more likely to migrate (a network of relationships). Yoon, Yun, Lee & Phillips (2015) used three structural, cognitive, and relational indicators to measure the extent of social capital and its effects on entrepreneurship, and the results show the positive effect of social capital on entrepreneurship

development. Kirori (2015) found that households with a higher social capital have a better livelihood in terms of product output. Sharifi and Nooripour (2018) argue that among the five types of capitals, physical capital was the first priority, and human, natural, and social capital are the next priorities, respectively.

In recent years, social capital has also received much attention from Iranian scholars and theorists. Studies conducted by Salehi Amiri & Amirentekhabi. (2013), Nasrollahi and Islami (2013), Salari Sardari et al., (2014) and Roumiani, Anabestani & Velaiee. (2015), indicate the direct and significant effect of social capital on variable dimensions of sustainable development. In addition, the level of social capital and participation in rural settlements was higher than urban settlements as a local indigenous factor in the process of regional development, which is more effective in advancing the objectives of the regional sustainable development process. Ghorbani, Evazpour & Siramirad. (2018) in Reagan County, Kerman Province, in order to analyze and evaluate the effects of intragroup social capital on sustainable development, examined the trust relationship and participation in the stakeholder network using direct and indirect observation, network analysis questionnaires, and interviews with all stakeholders. The results indicated a moderate level of trust, participation, and social capital prior to the implementation of the local community empowerment project, which has since increased and reached a desirable level. Heidari, Zarafshani & Moradi, (2015) believe that what distinguishes Farsinaj village in Kermanshah province in terms of development is the indigenous model of rural development which is based on out-group social capital. Roknoddin Eftekhari, Mahmoudi, Ghaffari & Poutaheri, (2015) explaining the spatial pattern of social capital in sustainable rural development of Khorasan Razavi province found that there is a statistically significant relationship between the natural position of the villages and their distance from cities, and the spatial pattern of the social capital. Anabestani, Khosrovbiegi, Taghilou & Zareie, (2013) believe that social capital, with the determination coefficient of 0.743, had the greatest effect on the participation rate in rural areas; Ghadiri Masoum, Rezvani, Jomepour & Baghiyani, (2015) and Sojasi Gheidari et al., (2016) found that social assets have been more influential than other livelihoods. Moridsadat et al., (2017) and Sharifi, Nooripour & Karami Dehkordi, (2017) show that among livelihood capitals, three types of capitals, including social capital, human capital and physical capital are at the moderate level of sustainability, and financial and natural capitals are in a potentially unstable situation. Mahmoudi & Roknoddin Eftekhari (2017) believe that rural areas suffer from a lack of social capital, which is an effective way to achieve sustainable rural development. Part of the spatial inequality of social capital in the villages of the study area is due to the differences in the amount of intragroup and out-group social capital.

Although studies on social capital and rural development are not scarce, they are mainly single-minded and limited to a few components of social capital, so in an integrated and holistic perspective, they highlight shortcomings. An analysis of the studies reveals that most of them have mainly looked into the subject from a sociological perspective; in addition to the fact that many types of capitals (including social capital, physical capital, human capital, natural capital, and economic capital) alone play a significant role in achieving social capital, they affect each other and even are convertible to each other. It is also important to study the types of development capital and analyze their relationship with social capital, which is missing in the current studies. Therefore, considering the issues raised and identifying the main gap, the present study, with an integrated and holistic view, seeks to study the relationship between different types of development capital and social capital.

3. Research Methodology

3.1 Geographical Scope of the Research

Bojnourd County, situated in Northern Khorasan has an area of 6563 square km, and borders Turkmenistan to the north, northeast and north-west, it is bordering Maneh and Somalgan to the west, Jajarm County to the south, Esfarayen County to the south, and Shirvan County to the southeast and east. It has five rural districts (Dehestan) and two districts known as Markazi and Garmkhan (Figure-2). The population of the study included rural settlements of this county, which according to the National Census 2016, was comprised of 150 villages with a population of 105378 people, out of which, 135 villages have more than 20 households (with a total population

of 104605). To study the spatial analysis of the effects of livelihood capitals on social capital in rural settlements of Bojnourd, the sample size was determined using the Cochran formula with the coefficient of precision 0.2; Twenty-two villages having a population more than 20 households were selected. To select the villages under study, stratified sampling method was used to ensure error reduction and the statistical representation of the sample population. Systematic sampling was used to select sample villages from within the classes (considering the length of each class and the number of samples in the same class (k= N/n). In selecting the first sample in each class, spatial distribution of the samples in each rural district and distance from the center of Bojnourd County was taken into account. Considering the household size of 22 villages and using Cochran formula at the error level of 0.055, the population was comprised of 298 households. Accordingly, to distribute the households in the sample villages with 10 samples as the base for each village, the remaining households were distributed proportionally (Table 1).

Table 1. Number of samples from each village and the total sample

Row	Name	District	Dehestan	Household	Sample Size	Row	Name	District	Dehestan	Household	Sample Size
1	Asadli	Central	Aladagh	78	11	12	Gharajeh	Central	Badranlou	118	12
2	Reshvanlou	Central	Aladagh	40	11	13	Ostad Teymourtash	Central	Badranlou	83	11
3	Gerivan	Central	Aladagh	765	22	14	Pesarakanlou	Central	Badranlou	77	11
4	Dartoum	Central	Aladagh	306	15	15	Goley	Central	Badranlou	333	15
5	Kalateh Naghi	Central	Aladagh	187	13	16	Bidak	Central	Badranlou	953	25
6	Kalateh Yavari	Central	Aladagh	277	14	17	Naveh	Garmkhan	Garmkhan	118	12
7	Peyghour	Central	Baba Aman	155	12	18	Gheshlag Abdolabad	Garmkhan	Garmkhan	60	11
8	Teraghi Tourk	Central	Baba Aman	243	14	19	Novdeh	Garmkhan	Garmkhan	423	17
9	Koh Kamar	Central	Baba Aman	105	12	20	Pakotal	Garmkhan	Garmkhan	48	11
10	Baba Aman	Central	Baba Aman	199	13	21	Izaman Payeen	Garmkhan	Gifan	115	12
11	Atrabad Olyia	Central	Badranlou	40	11	22	Meyanzou	Garmkhan	Gifan	128	13
Sum										4849	298

3.2. Methodology

The research methodology used in this study, with a geographical approach, is a descriptive-analytical one based on quantitative and qualitative methods. The survey instrument consisted of a researcher-made questionnaire in which social capital was measured in 10 dimensions in the form of 67 items with a 5-point Likert scale, the number of items or questions of each dimension with a varied distinction is defined in the following table. SPSS software was used to assess the validity and reliability of the questionnaire. In this method, using KMO test, the validity of social capital explanatory items is 0.71. According to the results of the structural validity test, Cronbach's alpha coefficient obtained from the questionnaire designed to measure social capital in the villages, is equal to 0.793 and for livelihood capital it is equal to 0.883. Therefore, the reliability or validity of the questionnaire was approved. After collecting and categorizing the data, the descriptive and inferential statistics were used in SPSS software; and Smart PLS software was used to extract structural equation model and determine the effects of livelihood capital and its dimensions on rural social capital. Structural Equation Modeling (SEM) with the ability to analyze the role of latent variables, for multivariate causal analysis and interpretation, examines the linear relationships between the latent variables and observed variables called the Standard Score (SS) which shows the standardization of latent variables and the keeping

of the scale of observed variables. The WASPAS and gray relational analysis (GRA) were also used for spatial analysis and ranking of sample villages. Then, the GWR was used for local-spatial analysis of the effects of livelihood capitals on social capital.

Table 2. Coefficient Alpha of the research instrument
(Source: Authors' Calculations, 2019)

Variable	Dimension	Question	Alpha	Total Alpha
Livelihood Capitals	Human Capital	24	0.782	0.883
	Natural Capital	20	0.616	
	Physical Capital	15	0.892	
	Financial Capital	18	0.732	
	Institutional Capital	7	0.698	
Social Capital	Social Awareness	19	0.816	0.793
	Social Participation	17	0.741	
	Social Networks	20	0.758	
	Social Solidarity	26	0.672	
	Social Trust	28	0.694	
Total		194	0.891	

3.2. Research variables and indicators

In order to select the social capital indicators, they were initially listed by critically analyzing the studies, and in the second step, the primary indicators were screened to identify the items of livelihood capitals and social capital, and then they were limited to main indicators. They were extracted from the questionnaires completed by local population in 5-point Likert scale (very low, low, medium, high and very high).

Table 3. Items and indicators explaining the variable of livelihood capitals
Source: Sojasi Gheidari et al (2016); Sharifi et al (2017); Jomepour (2011); Ghadiri Masoum et al (2015); Jomepour & Kiomars (2012); Mahmoudi & Roknoddin Eftekhari (2017)؛ Kassa & Eshetu (2014); Mthembu (2011); Fang, Fan, Shen & Song (2014); DFID (1999a); Ellis (2000); Ashley & Carney (1999); Soini (2005); Paszek, Gurecky & Prokop (2011); Shen, Hughey & Simmons (2009).

Dimensions	Indicators	Items
Human Capital	Manpower	Adequate population, number of young population, population growth rate
	work force	Active rural population, sufficient working population, inexpensive and efficient labor force
	Skills	The presence of experienced people in the activities, participation in courses of vocational education, job skills, the ability to transfer skills to others, interest in learning new skills
	Educated people	People with university degrees and higher education, rural literacy and women's literacy rate, head of households' education
	access to information	Access to publications and the Internet, the media, being familiar with the new sources of information, product marketing and introducing the attractions on the Internet
	Innovations	Interest in doing innovative activities, to enjoying making new things, and the amount of initiatives the villagers set up
Financial Capital	Access to capital	Average assets of households, loans received from relatives and friends, average savings in cash, satisfaction with the savings, owing a private house and the quality of housing, type of vehicles, number of vehicles, the total value of the vehicles
	Access to financial facilities	The priority of the villagers in getting banking and credit services, different backgrounds in receiving low-interest bank loans, the ability to repay the loans
	Production Resources	Access to inexpensive land and water, and the variety of products
	Good economic opportunities	Good employment opportunities for the youth, diverse employment backgrounds, job satisfaction, low-cost rural economic facilities (land, water, labor)

Dimensions	Indicators	Items
Natural Capital	agricultural land	Having fertile land, sufficient area of land, the use of manure, protective plowing, to welcome the integrating projects and land leveling
	Livestock breeding	Active animal husbandry, sufficient number of livestock
	Vegetation	The diversity of vegetation, the use of wood for fuel, the use of pastures for collecting medicinal plants, the use of pastures for hay and grazing
	Natural resources	No limitations in spatial development, access to ground water and wells, access to rivers and springs
	Environmental Health	Contamination of water resources, landfill and waste management systems
	The Natural landscape	rustic green spaces, clear and blue sky, and beautiful landscapes
Physical Capital	Infrastructure	basic facilities (water, electricity, gas), internet, telephone and good cell phone signal strength
	Social services	Access to educational, health, and recreational services
	Access	Suitable roads, easy access to nearby villages and towns, easy access to markets, access to public transportation
	Activity Tools	Having enough agricultural machinery, and access to garage to fix them
	Residential space	Multi-functionality of residential space, quality of housing, housing facilities, access to essentials of life
Institutional Capital	Local entities	Local management support (rural mangers) from activities, support of family members for new businesses, no social opposition to new businesses; rural cooperatives
	Government institutions	Government support for the villages, banks giving priority to the villagers, government support for rural businesses

Table 4. Items and indicators explaining the variable of social capital

Source: Faraji Sabokbar, Rezaiee & Gholami (2015); Anabestani (2014); Moridsadat (2014); Mousavi (2006); Farahani, Eynali & Abdoli (2013); Rokneddin Eftekhari et al. (2015); Motiee Langroudi, Nourbakhsh & Akbarpou Saraskanroud (2012); Khani, Ghadiri Masoum & Malekan (2013); Nasrollahi & Islami (2013); Shabani, Nakhli & Sheykhani (2013); Jomepour & Kiomars (2012); Roumiani et al. (2015); Isanezhad Zarifian, Raheli & Kouhestani (2014); Putnam (2001); Grootaert et al (2004); Giordano, Narayan, Jones & Woolcock (2010); Bhandari (2013); Li, Pickles & Savage (2005).

Dimensions	Indicators	Items
Social Trust	Interpersonal trust	Trust between close acquaintances, family members' trust in each other, villagers' trust in their relatives, villagers' trust in general public, rural farmers' trust in each other, villagers' trust in neighbors, travelers, rural tourists and immigrants
	Collective understanding	The ability of rural people in taking new responsibilities; confidence in individual decision-makings, collective understanding, villagers' trust in strangers, mental and emotional security
	To keep one's promises	To keep one's promises, ethical and personal standards, to bail out one's friends and relatives
	Institutional trust	People's trust in rural authorities (Dehyars, Rural Councils), in conflict resolution councils, in rural social institutions, in rural cooperatives, in rural services centers, in rural social institutions
	Trust in the government	People's trust in government, news and information broadcasted on the national media, instructors of Jihad-e-Agriculture, rural district authorities, government employees, and the police
Social Participation	Mental participation	Collective determination to solve problems, to welcome participation in reconstruction process of infrastructure, willingness to cooperate, collective thinking between government officials, people and experts, readiness to participate in rural affairs without pay
	Objective participation	Participation in rural decision-making, charity activities, training courses, material and spiritual participation in ceremonies, protection of natural attractions ,environment protection activities, consulting with successful farmers, general welfare activities , housing projects

Dimensions	Indicators	Items
	Official participation	Financial and non-financial participation in development projects ,facilitating - promoting program, participation in elections
Social Awareness	Personal-social awareness	Awareness of individual rights, social rights, duties of government and nongovernment organizations, the benefits of the partnership, religious , social and charity activities in rural areas, indigenous knowledge, problems of rural areas, one's abilities, protecting natural, historical, cultural heritage, ecological awareness ,environmental awareness, and the way one can improve the capacity and quality of the ecosystem
	Use of experiences	Collective awareness of the development opportunities , capacity development, recognizing the program objectives, individual's abilities in marketing
	Access to information resources	general reading time, the use of Internet and social media
	Individual abilities and skills	Diversity of activities and risk reduction in agriculture, rural people's ability to use their capacity and that of others, the efficient use of agricultural machinery
Social Solidarity	Respect and Intimacy	Solidarity and sympathy, rapport with the family members, the villagers' respect for each other, the elderly, and rural managers including Dehyars and rural councils
	Conflicts	no conflict between tribes , addressing the rural issues and disputes through talking and negotiation between relatives and friends and interacting with the rural councils, and the elderly
	Commitment	Respect for rural traditions and regulations, Respect for official rules, to feel committed to help others
	Cooperation and interworking	Attending in rural meetings, attending celebrations and mourning, consulting with neighbors, generosity to neighbors, team working, and burden sharing
	Social integration	Class conflicts, people's distress at youth immigration , to prefer living in rural environment to urban ones, paying attention to the common interests of the villagers, interest in starting a business in rural areas rather than urban areas
Social Networks	Family ties	Socializing with relatives, acquaintances, and neighbors, joining informal friendly debt funds, guiding family members when they are in dispute
	Engaging with local and grassroots institutions	To interact with rural managers and councils, membership in cooperatives and attending meetings of rural institutions, attending sports events and informal education courses, to join local traditional groups
	Interaction between Government institutions	Cooperation of government agencies with rural councils, Dehyari and people, communication and interaction with promoters and facilitators, communication with support centers
	Out-group relations	People going to other towns and villages during the week , contact with neighboring villages, going to formal and informal markets

4. Research findings

According to the results, 66.8% of the participants were male and the average age of the participants was 34.48 years, of which 44.6% were in the age group of 31 to 40 years. The findings show that 42.9% of the participants had a high school diploma or a higher degree. 70.5% of the participants were married and 52% of the respondents had agricultural jobs (farming, horticulture and animal husbandry).

4. 1. Survey of rural livelihood capitals in the study area

Indicators of human capital, natural capital, physical capital, financial capital and institutional capital (23 indicators and 84 items) in a 5-point Likert scale were used to measure the livelihood capitals in rural settlements of the study area. According to the research results, from the villagers' view, the level of local-spatial factors in the sample villages, with a mean of 2.64 was in a moderate level, and natural capital with a mean of 2.98 and the institutional-managerial capital with a mean of 2.18 respectively had the highest and lowest level in the villages of the study area. The level of the sample villages. The value of standard deviation also indicates a near dispersion of the data relative to the mean; although, the value of the standard deviation in financial capital is higher

than the other dimensions, and the coefficient of variation of 3.76 confirms the result, the difference between the maximum and minimum amounts of effects on changes was equal to 3.76. (Table 5).

Table 5. The assessment of dimensions and indicators of livelihood capitals from villagers' perspective (Test Standard = 2.5)

(Source: Research finding, 2019)

Dimension	Indicator	Mean	*t*	Sig	Dimension	Indicator	Mean	*t*	Sig
Human Capital	Manpower	3.1	12.07	0.000	Physical Capital	Infrastructure	3.53	18.85	0.000
	work force	2.75	5.98	0.000		Social services	2.84	6.25	0.000
	Skills	3.03	13.46	0.000		Access	2.71	4.99	0.000
	Educated people	2.47	-0.74	0.461		Activity Tools	2.38	-3.02	0.003
	access to information	2.11	-9.25	0.000		Residential space	2.81	7.32	0.000
	Innovations	3.11	10.6	0.000		Physical Capital	2.85	9.66	0.000
	Human Capital	2.76	7.59	0.000	Financial Capital	Access to capital	2.38	-2.96	0.003
Natural Capital	agricultural land	2.73	5.6	0.000		Access to financial facilities	2.39	-2.18	0.030
	Livestock breeding	2.92	7.88	0.000		Production Resources	2.79	4.76	0.000
	Vegetation	3.48	40.5	0.000		Good economic opportunities	2.10	-8.42	0.000
	Natural resources	2.74	7.96	0.000		Financial Capital	2.41	-1.96	0.051
	Environmental Health	2.96	6.73	0.000	Institutional Capital	Local entities	1.95	-12.13	0.000
	The Natural landscape	3.07	10.69	0.000		Government institutions	2.40	-2.4	0.017
	Natural Capital	2.98	17.81	0.000		Institutional Capital	2.18	-8.58	0.000

To evaluate the indicators, the mean of the villagers' views was compared and one sample T-test was used for this purpose. Before the test, the normality of data was confirmed by Kolmogorov-Smirnov test. Therefore, given the Likert's five-point scale in research questions, 2.5 was chosen as the theoretical median for assessing the indicators of local-spatial differences. Based on the results of t-test, the statistic value in all indicators is higher than the average value (i.e., 2.5). The indicators of vegetation (T=40.5), infrastructure (T=18.85), skills (T=13.46) are important indicators in determining the variable of rural livelihood capitals, because T statistic and significance level of 0.000 in these indicators, is less than 0.05. As the mean is greater than 2.5, with a confidence level of 95 percent, we may conclude that in the sample villages these indicators are in a more favorable conditions from the villagers' view. Given the value of the T statistic, from the villagers' view, the indicators of government institutions, access to information and economic opportunities are not in a good condition. It should be noted that the level of significance for the education indicator is not significant (Table-5).

In the spatial distribution of the mean variable of research, i.e., livelihood capitals at rural level, the villages of Bidak with 3.29 and Baba Aman with 3.18 had the highest statistics, and the villages of Meyanzou, Pakotal and Atrabad Olia respectively

showed the lowest statistics. The villages of Bidak and Baba Aman averaged more than 3 in all indicators except for institutional-managerial capital. Indicator of natural and physical capital in sample villages had a better condition. As in natural capital, eight villages and in physical indicator, seven villages have an average higher than 3 and are in more favorable conditions. The results show, all villages in better conditions, have shorter distance from Bojnourd, which makes it easier for them to access facilities and livelihoods. Gray relational analysis technique and multi-criteria decision-making models were used to determine the level of livelihood capitals in the sample villages. As noted above, GRA was performed by coding in MS Excel. The capital used are: human capital, natural capital, physical capital, financial capital, institutional-managerial capital. Shannon entropy technique was used to determine the weights of each of the indicators used. Based on the existing relationships and the final weights of the decision indicators, the weighted score of each village is presented in Table 6.

Table 6. Spatial analysis of livelihood capitals in the villages of the study using GRA technique
(Source: Research finding, 2019)

Row	Name	Mean	Score	Rank	Row	Name	Mean	Score	Rank
1	Gheshlagh Abdolabad	2.75	0.465	6	12	Koh Kamar	2.74	0.451	7
2	Asadli	2.33	0.319	18	13	Meyanzou	2.23	0.302	22
3	Baba Aman	3.18	0.880	2	14	Naveh	2.42	0.363	12
4	Bidak	3.29	0.979	1	15	Novdeh	2.61	0.413	9
5	Dartoum	2.28	0.314	19	16	Atrabad Olyia	2.28	0.312	20
6	Gerivan	2.50	0.360	13	17	Pakotal	2.28	0.311	21
7	Gharajeh	2.44	0.350	14	18	Pesarakanlou	2.41	0.338	17
8	Goley	2.45	0.348	16	19	Peyghour	2.59	0.395	10
9	Izaman Payeen	2.40	0.349	15	20	Reshvanlou	2.98	0.610	4
10	Kalateh Taghi	2.93	0.581	5	21	Teraghi Tourk	2.53	0.369	11
11	Kalateh Yavari	3.14	0.783	3	22	Ostad Teymourtash	2.68	0.421	8

The final ranking of the villages was based on the GRA model, and Bidak village had the best performance in livelihood capitals; Baba Aman village was the next, and the village of Mianzu was the last. In this regard, the effects of indicators such as short distance from city centers, main roads, the altitude, etc., can be mentioned, as the villages with the highest ranking were closer to the city center and the main roads, and in terms of access to physical, human, institutional and managerial funds are more favorable than villages such as Mianzu and Paktedel.

4.2. Social capital of the rural residents

To measure the social capital of rural settlements in the study area, the dimensions of social awareness, social participation, social networking, social cohesion and social trust were used along with 19 indicators and 110 items in the 5-score Likert scale. According to the results, from the viewpoint of the villagers, the level of social capital in the sample villages with the mean of 2.82 is in medium to high level; then social cohesion with a mean of 3.08 and social awareness with a mean of 2.54, respectively, had the highest and the lowest level in the sample villages. The value of standard deviation also shows the near-to-average distribution of data; however, the value of standard deviation in social trust is higher than the other dimensions. The coefficient of variation of 3.98 for the social trust dimension also confirms this result, namely the difference between the maximum and minimum effects on the changes is 3.98 (Table-7).

To know the status of the research variables in dimensions and indicators, the mean of villagers' views was used in the single sample t-test and theoretical median of 2.5. The normality of the data was confirmed by Kolmogorov-Smirnov test. Based on the results of the one-sample t-test, social cohesion has the highest value of t (t=14.39) at the acceptable level of significance. The value of *t* statistic for the dependent variable, namely social capital, is higher than the theoretical median defined and is 9.54. Based on the villagers' views, all the indicators identified in each of the variables of social capital have a mean higher than the theoretical median (*i.e.*, 2.5) except for the

indicator of access to information resources which had a mean of 2.18. This shows that sample villages are in low level in terms of reading time, the use of internet and social media. The mean of participants' views in four indicators of keeping one's promises, interpersonal trust, respect and intimacy, and cooperation and interworking were better than the other indicators, and the mean of these indicators was higher than 3, showing better conditions of trust and social cohesion in the sample community. The indicators of cooperation and interworking (T=18.97), interpersonal trust (T= 14.03), respect and intimacy (T=13.57) are important indicators in determining social capital variable, as t-statistic and significance level of 0.000 in these indices, which are less than 0.05, and given the respective mean of more than 2.5, with the confidence level of 95%, we may conclude that in villagers' view, these indicators in the sample villages, are in a more favorable conditions. It should be noted that given the value of t statistic, the indicators of access to information resources and the use of other peoples' experiences in villagers' view, were not in a good condition and the mean of participants' views was less than the theoretical median.

Table 7. Evaluation of social capital indicators from villagers' view (Test Standard = 2.5)
(Source: Research finding, 2019)

Dimension	Indicator	Mean	*t*	Sig	Dimension	Indicator	Mean	*t*	Sig
Social Awareness	Personal-social awareness	2.65	3.715	0.000	Social Networks	Family ties	2.88	8.73	0.000
	Use of experiences	2.59	2.102	0.036		Engaging with local and grassroots institutions	2.62	2.908	0.004
	Access to information resources	2.18	-6.846	0.000		Interaction between Government institutions	2.69	4.276	0.000
	Individual abilities and skills	2.75	5.929	0.000		Out-group relations	2.91	10.055	0.000
	Social Awareness	2.54	1.23	0.219		Social Networks	2.77	7.69	0.000
Social Participation	Mental participation	2.65	3.504	0.001	Social Trust	Interpersonal trust	3.13	14.031	0.000
	Objective participation	2.83	8.263	0.000		Collective understanding	2.88	8.047	0.000
	Official participation	2.77	5.566	0.000		To keep one's promises	3.06	11.138	0.000
	Social Participation	2.75	6.29	0.000		Institutional trust	2.86	7.207	0.000
Social Solidarity	Respect and Intimacy	3.2	13.565	0.000		Trust in the government	2.88	8.532	0.000
	Conflicts	2.99	9.968	0.000		Social Trust	2.96	10.90	⋯
	Commitment	2.96	9.889	0.000					
	Cooperation and interworking	3.28	18.971	0.000					
	Social integration	2.95	9.837	0.000					
	Social Solidarity	3.08	14.4	0.000					

In the spatial distribution of the mean social capital at rural level, the villages of Bidak with 3.54, Kalate Yavari with 3.27 and Baba Aman with 3.25 had the highest statistics and the villages of Paktel, Izmanpayin and Atrabad Olia had the lowest statistics, respectively. The villages of Kalate Yavari and Baba Aman had a mean of more than 3 in all indicators, and the village of Bidak had a mean of less than 3 only in social awareness indicator. The findings show the indicators of social cohesion and social trust in the sample villages are in more favorable conditions, as in the social cohesion, 11 villages have a mean higher than 3 and have more favorable conditions.

WASPAS was used to more precisely examine and determine the level of social capital of the sample villages. In the second step, once the status quo matrix has been formed, to standardize it, the indicators should were weighted. In the next step, after calculating the weight of the indicators, in the standardization of the status quo matrix according to the type of indicators (with positive or negative direction), normalization was used. Then, the variance of the initial normalized values was estimated. Then, based on different values of λ, the Qi indicator takes different values. If λ = 0, the WASPAS model changes to the WPM model. And if λ=1, the WASPAS model changes to WSM model. After calculating the optimal value of λ, we put it in the above relation and calculate the score for each alternative and then rank the alternatives accordingly. According to the results, the villages of Bidak, Kalate Yavari and Baba Aman had the highest level of social capital and the villages of Pakotal, Izmanpayeen and Atrabad Olia had the lowest level of social capital (Table 8).

Table 8. Variances calculated for all alternatives and the calculated values of Q and λ
(Source: Research finding, 2019)

Name	Mean	λ	Qi	Rank	Name	Mean	λ	Qi	Rank
Gheshlagh Abdolabad	2.83	0.817	0.217	8	Koh Kamar	2.87	0.819	0.216	9
Asadli	2.61	0.833	0.198	16	Meyanzou	2.43	0.841	0.184	19
Baba Aman	3.25	0.798	0.249	3	Naveh	2.69	0.831	0.204	14
Bidak	3.54	0.789	0.267	1	Novdeh	2.85	0.823	0.216	8
Dartoum	2.62	0.832	0.199	15	Atrabad Olyia	2.41	0.844	0.183	20
Gerivan	2.73	0.827	0.206	12	Pakotal	2.32	0.849	0.174	22
Gharajeh	2.58	0.834	0.196	18	Pesarakanlou	2.70	0.828	0.205	13
Goley	2.60	0.837	0.196	17	Peyghour	2.76	0.828	0.208	10
Izaman Payeen	2.34	0.849	0.178	21	Reshvanlou	3.10	0.805	0.237	4
Kalateh Taghi	3.00	0.811	0.229	6	Teraghi Tourk	2.75	0.827	0.208	11
Kalateh Yavari	3.27	0.797	0.250	2	Ostad Teymourtash	3.08	0.810	0.233	5

4.3. Local-spatial analysis of the effects of livelihood capitals on social capital in rural settlements

To test the conceptual model of research and examine the effects of local-spatial assets on social capital, a Structural Equation Modeling (SEM) technique with Partial Least Squares (PLS) approach and Smart PLS 3 software, a variance path modeling technique, were used. This method is the best tool for analyzing a research in which relationships between variables are complex. In this model, the validity of the questionnaire was assessed by two convergent and divergent validity criteria that are specific to structural equation modeling. Convergent validity refers to the ability of the indicators of a dimension to explain that dimension, and divergent validity implies that research model constructs should be more correlated with their questions than with other constructs (Hulland, 1999). For evaluating convergent validity, we used Average Variance Extracted (AVE) criterion which is for first order variables.

Table 9. Indicators used for evaluating the validity and reliability of the tool of social capital concept
(Source: Research finding, 2019)

Component	Convergent validity	Reputation point			Reliability	
	AVE	Fornell & Locker	Cross-factor loads	HTMT	Cronbach Alpha	Combined reliability
Human Capital	0.574	Verification	Verification	Verification	0.850	0.890
Natural Capital	0.531	Verification	Verification	Verification	0.775	0.712
Physical Capital	0.606	Verification	Verification	Verification	0.837	0.885
Financial Capital	0.771	Verification	Verification	Verification	0.900	0.931
Institutional Capital	0.738	Verification	Verification	Verification	0.767	0.848
Social Networks	0.721	Verification	Verification	Verification	0.869	0.911

Component	Convergent validity	Reputation point			Reliability	
	AVE	Fornell & Locker	Cross-factor loads	HTMT	Cronbach Alpha	Combined reliability
Social Participation	0.830	Verification	Verification	Verification	0.897	0.936
Social Awareness	0.669	Verification	Verification	Verification	0.831	0.889
Social Trust	0.807	Verification	Verification	Verification	0.940	0.954
Social Solidarity	0.728	Verification	Verification	Verification	0.906	0.930
Social Capital	0.761	Verification	Verification	Verification	0.921	0.941

The criterion value for the AVE acceptable level is 0.5 (Magner, Welker & Campbell, 1996), meaning that the latent variable explains at least 50% of its observable variance. As shown in Table 9, all AVE values are for constructs greater than 0.5, and this confirms that the convergent validity of the present questionnaire is acceptable. To assess the model reliability, the Composite Reliability and Cronbach's alpha were investigated. Cronbach's alpha coefficient shows the ability of questions to properly explain their respective dimensions. The composite reliability coefficient also determines the degree of correlation of the questions of a dimension with each other to adequately fit measurement models (Fornell & Larker, 1981). The results are summarized in Table-9. Given that the appropriate value for the Cronbach's alpha and the composite reliability is 0.7 (George & Mallery, 2003), and in accordance with the findings shown in Table 9, these criteria have adopted appropriate values for latent variables, and one can confirm the reliability of the study. To investigate the main hypothesis, namely the effects of livelihood capitals on social capital of the villagers, variance-based structural equation modeling was used. The tested conceptual model is presented in Figure-2.

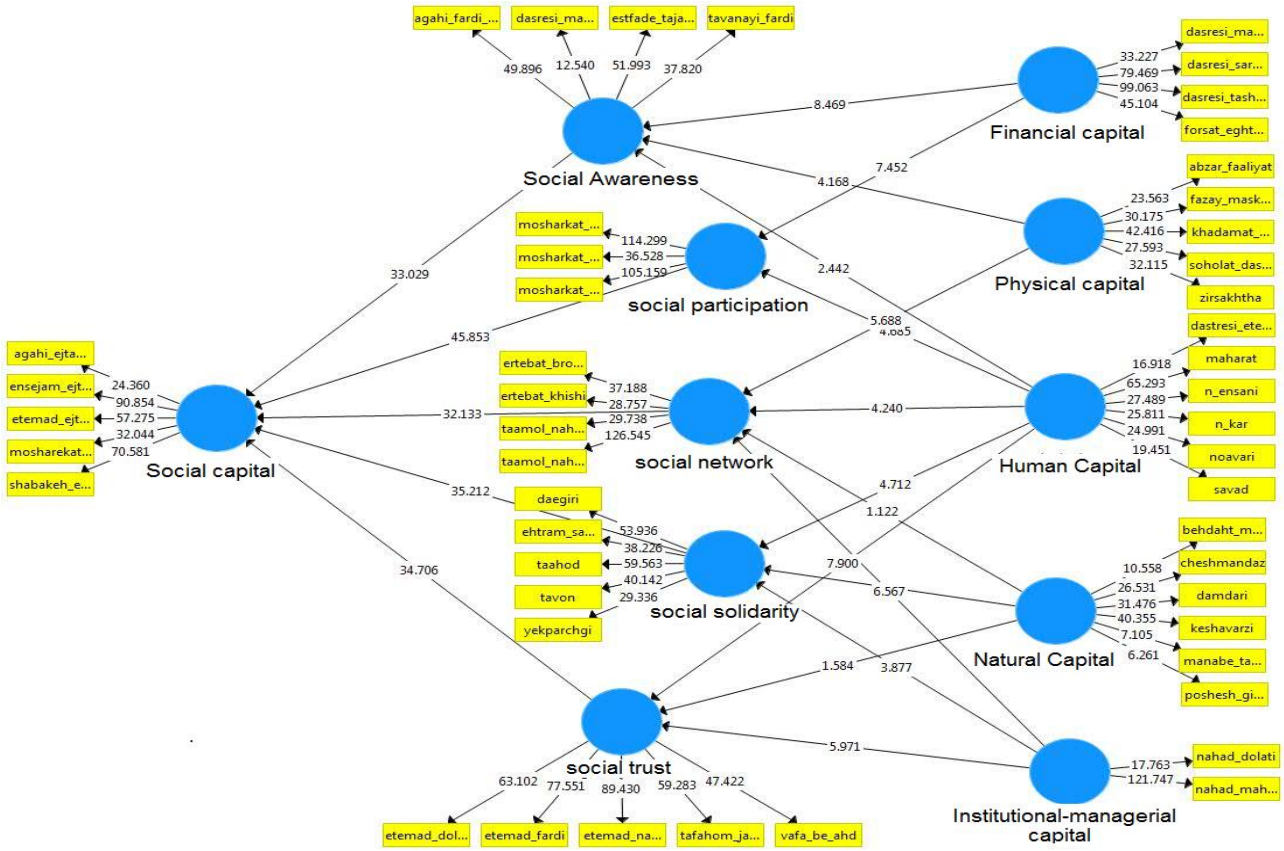

Figure 2. Structural model of the relationship between livelihood capitals and social capital and its relevant components

(Source: Research finding, 2019)

In the above figure, the numbers on the lines are the T values of the Bootstrapp test and are interpreted the same as T test; In other words, if the T values are more than 1.96, they are significant at 0.05 level, and if the values are more than 2.58, they are significant at the 0.01 level (Vinzi, Trinchera & Amato, 2010). As shown in Figure 3, the T coefficients between livelihood capitals and social capital (dependent variable) and its related components are above 2.58; therefore, the relationship between the independent variable dimensions and social capital in the sample population is verified with the confidence level of 99%. In addition, to evaluate the path coefficient, it is necessary to estimate t value for each path. Table 10 shows the values of the path coefficients and the significance level of each path.

Table 10. Evaluation indicators of the research internal model, direction and significance of direct effects among research variables

(Source: Research finding, 2019)

To directly associate variables	Standard beta coefficient	T Statistics (|O/STDEV|)	p-value
Social Awareness → Social Capital	0.006	33.029	0.000
Social Trust → Social Capital	0.006	34.706	0.000
Social Solidarity → Social Capital	0.007	35.212	0.000
Human Capital → Social Awareness	0.058	2.442	0.015
Human Capital → Social Trust	0.062	7.900	0.000
Human Capital → Social Solidarity	0.059	4.712	0.000
Human Capital → Social Networks	0.068	4.240	0.000
Human Capital → Social Participation	0.068	4.685	0.000
Natural Capital → Social Solidarity	0.060	7.162	0.000
Physical Capital → Social Awareness	0.071	4.168	0.000
Physical Capital → Social Networks	0.053	5.688	0.000
Financial Capital → Social Awareness	0.053	8.469	0.000
Financial Capital → Social Participation	0.054	7.452	0.000
Institutional Capital → Social Trust	0.053	5.971	0.000
Institutional Capital → Social Solidarity	0.044	3.877	0.000
Institutional Capital → Social Networks	0.045	6.567	0.000
Social Networks → Social Capital	0.008	32.133	0.000
Social Participation → Social Capital	0.005	45.853	0.000

Given the results of T and P path coefficients, and confirmation of the direct relationship between livelihood capitals and the dependent variable components, the coefficients of direct and indirect effects of the indicators on the dependent variable, i.e., social capital, are also examined. The causal relationship between the latent variables and social capital has been measured in a structural model. The numbers written on the lines are actually beta coefficients of the regression equation between variables, which are the path coefficients. The numbers inside each circle represent the R2 value of the model in which the predictor variables are inserted into the circle via an arrow.The numbers on the path lines and the lines related to factor loadings are indicators. As Figure 3 shows, the five dimensions of the independent variable have no direct effect on the dependent variable, namely social capital, and indirectly affect these indicators through the components of social capital. The relationship between the main construct, the independent variable and the dependent variable, is indirect and significant; according to the standard coefficients, 99% of the effects of social capital in the sample population are directly predicted by the independent variable namely livelihood capital (Table 11).

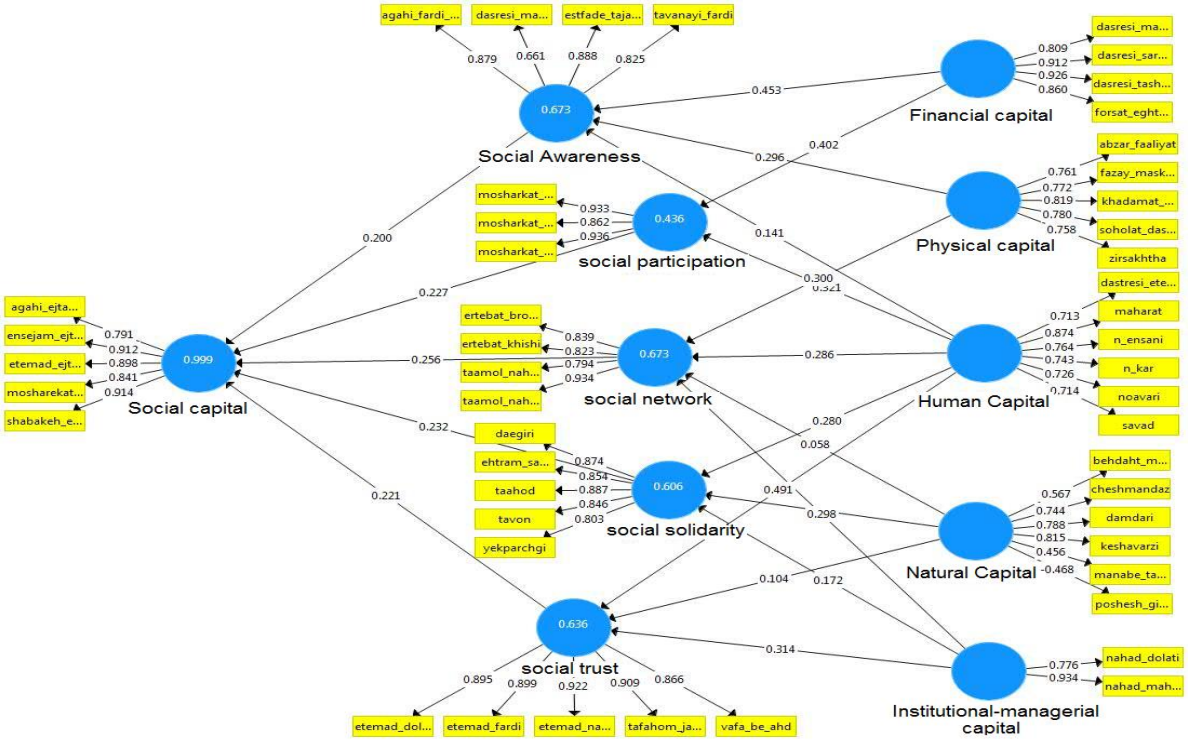

Figure 3. Evaluation of the structural model of livlihood capitals on social capital
(Source: Research finding, 2019)

Table 11. An estimation of the total, direct and indirect effects of research components on social capital
(Source: Research finding, 2019)

Independent variable	Intermediate variable	Dependent variable	Coefficient of determination	Estimate					
				Total		Direct		Indirect	
				Impact	*P*	Impact	*p*	Impact	*p*
Human Capital	→ Awareness, Solidarity, Trust, Participation& Networks →	سرمایه اجتماعی	0.99	0.348	0.000	-	-	0.348	0.000
Natural Capital	→ Solidarity →			0.137	0.000	-	-	0.137	0.000
Physical Capital	→ Awareness & Networks →			0.136	0.000	-	-	0.136	0.000
Financial Capital	→ Participation& Awareness →			0.182	0.000	-	-	0.182	0.000
Institutional Capital	→ Networks, Solidarity & Trust →			0.185	0.000	-	-	0.185	0.000
Social Networks	→			0.256	0.000	0.256	0.000	-	-
Social Participation	→			0.227	0.000	0.227	0.000	-	-
Social Awareness	→			0.200	0.000	0.22	0.000	-	-
Social Trust	→			0.221	0.000	0.221	0.000	-	-
Social Solidarity	→			0.232	0.000	0.232	0.000	-	-

The values estimated in Table 11 indicate that:
Dimensions of independent variable indirectly have affected social capital variable. This relationship between the main research constructs at 95% confidence level is also statistically significant and P is less than 0.05 (p > 0.05), that is, each unit increment of the independent variable (relative to the obtained impact coefficient) increases the dependent variable, and vice versa.
Independent variable indicators (human, natural, physical, financial, and institutional capitals) account for 99% of the variance of social capital, which is estimated large given the magnitude of the effect of the coefficient of determination. In other words, independent variable indicators can, to a large extent, explain the variance of the social capital.
The five indicators of the independent variable only indirectly influenced the dependent variable by mediatory role of the components of social capital, and the indirect effects of the dimensions of the independent variable on social capital was statistically significant (p >0.05).
Finally, considering the coefficients of the direct and indirect effects of research indicators on social capital, it can be said that the effects of local-spatial factors on social capital are positive and estimated to be high; Thus, from the villagers' view, generally the human capital with the coefficient of 0.348 and physical capital with coefficient of 0.136 respectively had the most and the least effect on social capital.
Thus, the main hypothesis of the study is confirmed, that is "livelihood capitals seem to have a significant effect on the social capital of the villagers in the study area". The independent variable has a significant and indirect effect on the social capital.
Evaluation indicators of the total structural equation modeling, also confirm the results, which indicate that the data collected, support the theoretical model of the research; in other words, the fitness of the data for the model is established and all the indicators verify the equation model is favorable. Evaluation indicators of the structural equation model is presented in Table 12.

Table 12: Evaluation indicators of the total structural equation model[1]
(Source: Research finding, 2019)

Indicator	GOF	SRMR	NFI
Value	0.568	0.081	0.912

Geographically Weighted Regression (GWR) is a type of spatial regression that is increasingly used in geosciences and other disciplines that use spatial data and the like. In classic regressions, such as ordinary least squares (OLS) regression, we assume that the relationship we want to model between a dependent variable and a number of independent variables is the same across the study area, which in many cases is not a correct assumption. GWR provides a local model of the variable that we seek to understand or better predict by applying local regression to any of the conditions. GWR does this by preparing separate regression equations for each condition with respect to independent and dependent variables that are within the band or range of the conditions (Asgari, 2011). In GWR, unlike OLS, the coefficients or parameters of the model at the study area are not constant and depend on local conditions (spatial and geographical weight) and the amount and sign of each is spatially variable (Hosseinkhah, Erfaniyan & Alijanpour, 2016).
The most important output values were adjusted in R2 and R2 Geographically Weighted Regression (GWR). These values are 0.936 and 0.935 in the study area, indicating accuracy of the model. The zoning results of R2 results in the area show that its maximum extent (43.9% with distribution in the eastern, southeast and south areas and a narrow area in the north of the County) has a coefficient of impact of 0.91 to 0.90, which has included 45% of the villages and 47.3% of the rural population of the County (table 13 & Figure 4).

1. In variance-based structural equation modeling approach and Smart PLS, the software related to this approach, a small number of total model evaluation indicators are reported.

Table 13. Spatial zoning of the coefficient of impact of livelihood capitals on social capital in the study area
(Source: Research finding, 2019)

Explain	Impact Factor (R^2)	Squar (Km^2)	Village		Population		Sample Villages
			No.	Percent	No.	Percent	
Low	0.875-879	197.6	6	4.6	1712	2	-
Relatively Low	0.89-0.9	226.5	7	5.3	2445	2.8	Meyanzou
Relatively High	0.9-0.91	1411.3	59	45	40769	47.3	Pakotal, Peyghour, Teraghi Tourk, Koh Kamar, Novdeh, Asadli, Reshvanlou, Kalateh Taghi, Kalateh Yavari, Baba Aman, Dartoum, Izaman Payeen, Gerivan
High	0.91-0.915	456.3	27	20.6	27024	31.3	Naveh, Gheshlagh Abdolabad, Pesarakanlou, Goley, Ostad Teymourtash, Bidak
Very High	0.915-0.922	924.1	32	24.4	14298	16.6	Gharajeh, Atrabad Olyia
Sum	-	3215.8	131	100	86248	100	-

On the other hand, border areas with lower impact coefficients of local-spatial factors comprise less than 0.6% of the study area, 4.6% of the number of villages and 2% of the rural population.

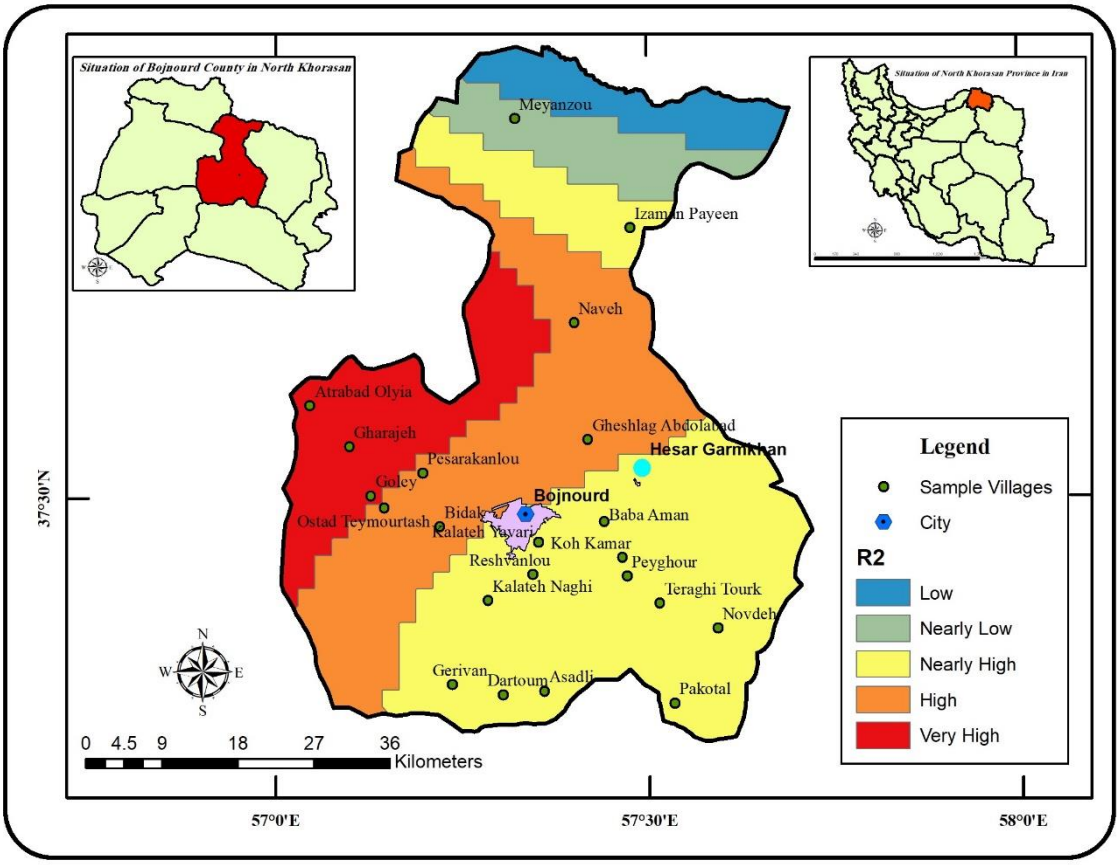

Figure 4. The zoning of the impact of local-spatial factors on social capital in the region
(Source: Research finding, 2019)

5. Discussion and Conclusions

The results show that the level of livelihood capitals in the sample villages with a mean of 2.64 is at a moderate level, and the dimension of natural capital with a mean of 2.98 and institutional-managerial capital with a mean of 2.18 respectively had the highest and the lowest level in the sample villages. This part of the research results is in line with the researches of Moridsadat et al., (2017), Sharifi & Nouripour (2018) and Sharifi et al., (2017); however, they are different from finding of Anabestani et al., (2013), Ghadiri Masoum et al., (2015), and Sojasi Gheidari et al., (2016). According to the results of T test, the indicators of vegetation (T=40.5), infrastructure (T=18.85), skills (T=13.46) are important indicators in determining the variable of rural livelihood capitals. In the spatial distribution of the mean of this variable at the rural level, the villages of Bidak with 3.29 and Baba Aman with 3.18 had the highest statistics and the villages of Mianzu, Paktel and Atrabad Olia had the lowest statistics, respectively. Based on the results of the ranking of sample villages based on GRA model, Bidak also had the best performance in terms of livelihood capitals, Baba Aman was the next, and the village of Mianzu is also at the bottom of the ranking list.

From the point of view of villagers, the level of social capital in the sample villages with the mean of 2.82 was moderate to high; then social cohesion with the mean of 3.08 and social awareness with the mean of 2.54 respectively had the highest and lowest value in the sample villages. Comparing the mean of the participants' opinions with the theoretical median of 2.5, the one-sample T-test results also confirm the above results, as the results show that social cohesion has the highest value of T statistic (i.e., 14.39) at the significant level. The value of T statistic for the dependent variable, namely social capital, was higher than defined theoretical median and is equal to 9.54. Also based on the results of T-test, the indicators of co-operation and interworking (T=18.97), interpersonal trust (T= 14.03), respect and intimacy (T=13.57) are among important indicators in determining the variable of social capital.

The results show that indicators such as participation, trust, cohesion, as well as bonds and interactions in rural areas still hold a special place in rural areas. The results of the present study in the field of spatial analysis of social capital agree with the results of studies conducted by Salehi Amiri & Amirentekhabi (2013), Nasrollahi & Islami (2013), Salari Sardari et al., (2014), Roumiani et al. (2015)., Heidari et al (2015) and Ghorbani et al (2018). In the spatial distribution of mean social capital at rural level, the villages of Bidak with 3.54, Kalate Yavari with 3.27 and Baba Aman with 3.25 had the highest statistics and the villages of Pakotal, Izmanpayeen and Atrabad Olia had the lowest statistics. Besides, the WASPAS was used to more precisely examine and determine the level of social capital of the sample villages and rank the sample villages; accordingly, as the villages of Bidak, Kalat Yavari and Baba Aman had the highest level of social capital and the villages of Pakotal, Izmanpayeen and Atrabad Olia had the lowest level of social capital.

The structural equation modeling technique with the partial least squares approach and Smart PLS software were used for further investigation of the effects of livelihood capitals on social capital. According to the results of external model test, divergent and convergent validity, Cronbach's alpha and composite reliability were confirmed. The internal test of the structural model showed that the coefficients of *t* between the two main constructs of research are above 2.58, indicating that the relationship between the two main constructs of research is direct and significant; and the independent variable indicators (human, natural, physical, financial, and institutional capitals) together account for 99% of the variance of the variable of social capital, which is estimated large given the magnitude of the effect of the coefficient of determination. In general, human capital with the coefficient of 0.348 and physical capital with the coefficient of 0.136 respectively had the most and the least effects on social capital. In other words, the independent variable indicators can greatly explain the variance of social capital variable. The results of spatial analysis using GWR showed that the impact of livelihood capitals on social capital was highest in the villages of Atrabad Olia and Gharajeh and in total about 45% of the villages in the study area had an impact coefficient of 0.91 to 0.90. Therefore, the research hypothesis is confirmed, and the independent variable has a remarkable and significant effect on social capital. Accordingly, the following suggestions can be made:

• The planners should pay attention to available livelihood capitals in rural areas in the process of planning for rural development.
• The villagers should be informed about the value and importance of livelihood capitals (both material and non-material) available in their village and their effects on improving the social capital and rural, regional and national development.
• To meet the economic needs of people living and working in rural areas by diversifying their activities and income resources, particularly through providing a variety of job opportunities, creating wealth, and improving the living standards of rural people, especially those who make their living through subsistence farming.
• To upgrade the facilities of rural areas through the provision of amenities and services, capacity building, enhanced accountability, participation, creating a sense of mutual trust and social cohesion to improve public participation in rural and livelihood development programs that guarantee social sustainability, and improve rural social capital.
• To preserve natural resources, and protect pristine landscapes, biodiversity, rural environment, and promote sustainable use of environmental resources which improves rural livelihoods and enhances rural social capital.

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تحلیل مکانی- فضایی اثرگذاری سرمایه‌های معیشتی بر شکل‌گیری سرمایه اجتماعی در سکونتگاه‌های روستایی
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چکیده مبسوط

۱. مقدمه

مطالعه سرمایه اجتماعی در بطن مکان/ فضا، نگرش جدیدی است که علم جغرافیا سرآمد آن است و بعنوان وجه تمایز آن با سایر علوم تلقی می‌گردد. برخی جامعه‌شناسان در مطالعات خود اشاره کرده‌اند که روابط اجتماعی، روی فضا بنا می‌شود. به سخن دیگر، جامعه الزاماً به لحاظ فضایی ساخته می‌شود و سازمان فضایی جامعه در خصوص چگونگی عملکرد جامعه، نقشی ایفا می‌کند. بنابراین با الهام از این مباحث، تحلیل فضایی سرمایه اجتماعی، بعنوان شکافی در مطالعه این مفهوم ما را بر این داشت تا ضمن بررسی کمّ و کیف سرمایه اجتماعی، به تحلیل مکانی- فضایی و رتبه‌بندی آن در مناطق روستایی بعنوان نقطه عطفی در مطالعه‌ی این مفهوم بپردازیم. بنابراین مکان و فضا در شـ کل‌گیری کم و کیف سرمایه اجتماعی مؤثر و توسعه بدون ابعاد جغرافیایی آن ناکارآمد است. بنابراین پژوهش حاضر به بررسی وضعیت سرمایه اجتماعی سکونتگاه‌های روستایی شهرستان بجنورد و تأثیر سرمایه‌های معیشتی بر شکل‌گیری سرمایه اجتماعی در روستاهای نمونه پرداخته است و در کنار آن سنجش وضعیت سرمایه‌های معیشتی و میزان سرمایه اجتماعی هریک از روستاها به همراه رتبه‌بندی روستاهای مورد بررسی مورد نظر قرار گرفته است.

۲. مبانی نظری تحقیق

شرط لازم برای پیشرفت هر جامعه‌ای به خصوص جوامع روستایی، توسعه همه‌جانبه، ایجاد روابط گرم، گسترش انسجام اجتماعی، بسط مشارکت اجتماعی و از همه مهمتر اعتماد متقابل (فرد، جامعه و دولت) است که این سازه‌ها از مؤلفه‌های سرمایه اجتماعی هستند که در بستر مکان/ فضا مفهوم می‌یابند. در این رویکرد، شناخت وضعیت سرمایه‌های افراد، استراتژی‌هایی که برای امرار معاش در اختیار می‌گیرند، نتایجی که خواستار هستند و بستر آسیب پذیری که در آن فعالیت می‌کنند، اساسی است. سرمایه‌ها جزء اساسی از معیشت افراد به خصوص قشر فقیر می‌باشند. مردم نیازمند این سرمایه‌های متفاوت هستند تا به اهداف تعریف شده شان برسند. با واکاوی مطالعات صورت گرفته مشخص می‌شود که بیشتر مطالعات عمدتاً از دید جامعه‌شناسی به مسئله پرداخته‌اند همچنین علاوه بر اینکه، انواع سرمایه‌ها (سرمایه اجتماعی، سرمایه فیزیکی، سرمایه انسانی، سرمایه طبیعی، سرمایه اقتصادی) به‌تنهایی در دستیابی به سرمایه اجتماعی نقش و اهمیت قابل‌توجهی دارند، بر یکدیگر تأثیرگذار بوده و حتی قابل‌تبدیل شدن به یکدیگر می‌باشند.

۳. روش تحقیق

روش تحقیق در پژوهش حاضر توصیفی - تحلیلی و نوع آن ازنظر هدف، بنیادی است. برای جمع‌آوری اطلاعات از روش‌های اسنادی و میدانی استفاده‌شده است.

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جامعه نمونه ۲۲ روستای بالای ۲۰ خانوار در شهرستان بجنورد می‌باشد که از طبقات مختلف جمعیتی و فواصل متفاوت با شهر بجنورد انتخاب شدند. از مجموع ۴۸۴۹ خانوار در نقاط روستایی نمونه، با فرمول کوکران، حجم نمونه ۲۹۸ خانوار به‌دست‌آمده این افراد با روش نمونه‌گیری تصادفی انتخاب شدند. برای آزمودن مدل مفهومی پژوهش و بررسی تاثیر سرمایه‌های معیشتی بر سرمایه اجتماعی از تکنیک حداقل مربعات جزئی و نرم افزارSmart PLS استفاده شده است همچنین ارزیابی میزان کارایی مدل در سطح شهرستان بجنورد، مدل رگرسیون موزون جغرافیایی استفاده گردید.

۴. یافته‌های تحقیق

برای بررسی تاثیر سرمایه‌های معیشتی بر سرمایه اجتماعی از فن مدل‌سازی معادلات ساختاری با رویکرد تکنیک حداقل مربعات جزئی و با استفاده از نرم افزار Smart PLS، استفاده گردیده است. با توجه نتایج آزمون بیرونی مدل، مقدار روایی واگرا و همگرا، آلفای کرونباخ و پایایی ترکیبی مورد تایید قرار گرفت. و با آزمون درونی مدل ساختاری تحقیق نیز مشخص شد، ضرایب t بین دو سازۀ اصلی پژوهش، بالای ۲/۵۸ هستند که نشان می‌دهد رابطه بین دو سازۀ اصلی پژوهش معنادار و مستقیم است؛ و شاخص‌های متغیر مستقل تحقیق (سرمایه انسانی، طبیعی، فیزیکی، مالی و نهادی) در مجموع ۹۹ درصد از واریانس متغیر سرمایه اجتماعی را پیش‌بینی می‌کنند که با توجه به مقادیر حجم اثر شاخص ضریب تعیین، این مقدار بزرگ برآورد می‌شود، همچنین در کل سرمایه انسانی با ضریب ۰/۳۴۸ بیشترین و سرمایه فیزیکی با ضریب ۰/۱۳۶ کمترین تاثیر را بر سرمایه اجتماعی دارد. به عبارت دیگر شاخص‌های متغیر مستقل در حد زیادی توان تبیین واریانس متغیر سرمایه اجتماعی را دارند. نتایج تحلیل فضایی با استفاده از مدل GWR مشخص نمود که ضریب تأثیر سرمایه‌های معیشتی بر سرمایه اجتماعی در روستاهای اترآبادعلیا و قراچه در بالاترین سطح قرار داشته و در مجموع حدود ۴۵ درصد روستاها در محدوده مورد مطالعه دارای ضریب تأثیری بین ۰/۹۱ تا ۰/۹۰ بوده‌اند.

۵. بحث و نتیجه‌گیری

نتایج تحقیق نشان می‌دهد سطح متغیر سرمایه‌های معیشتی در روستاهای نمونه، با میانگین ۲/۶۴ در حد متوسط می باشد؛ و بعد سرمایه طبیعی با میانگین ۲/۹۸ بیشترین و سرمایه نهادی-مدیریتی با میانگین ۲/۱۸ کمترین مقدار را در سطح روستاهای نمونه داشته است. ازنظر روستاییان، سطح متغیر سرمایه اجتماعی در روستاهای نمونه، با میانگین ۲/۸۲ در حد متوسط به بالا می باشد؛ و بعد انسجام اجتماعی با میانگین ۳/۰۸ بیشترین و اگاهی اجتماعی با میانگین ۲/۵۴ کمترین مقدار را در سطح روستاهای نمونه داشته است.

با عنایت به اینکه، مطالعه سرمایه‌های معیشتی و تحلیل رابطه آن‌ها با سرمایه اجتماعی بعنوان چالش بنیادین در امر دستیابی به توسعه پایدار روستایی حائز اهمیت است که جای این بحث در مطالعات صورت گرفته خالی ست؛ پیشنهاد می‌گردد مطالعات آتی به رهیافت سرمایه اجتماعی و تاثیر سرمایه‌های معیشتی بر ایجاد آن و توسعه روستایی توجه بیشتری مبذول دارند. مناطق روستایی از کمبود سرمایه اجتماعی که یکی از پراهمیت‌ترین انواع سرمایه‌های توسعه‌ای جهت دستیابی به توسعه پایدار روستایی است، رنج می‌برند، لذا ارتقای شاخص‌های سرمایه اجتماعی و اطلاع رسانی و آگاهی بخشی به روستاییان نسبت به ارزش و اهمیت عوامل مکانی-فضایی و سرمایه های مادّی و غیرمادّی موجود در مناطق روستایی بایستی موردتوجه پژوهشگران و برنامه‌ریزان توسعه روستایی قرار گیرد.

کلیدواژه‌ها: سرمایه اجتماعی، سرمایه‌های معیشتی، معادلات ساختاری، رگرسیون موزون جغرافیایی، شهرستان بجنورد.

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دکتر سمیرا محمودی (استادیار جغرافیا وبرنامهٔ ریزی روستایی دانشگاه گیلان)

دکتر محمودرضا میرلطفی (دانشیار جغرافیا و برنامه‌ریزی روستایی دانشگاه زابل)

دکتر ولی‌الله نظری (استادیار جغرافیا و برنامه‌ریزی روستایی دانشگاه فرهنگیان)

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.

نمونه فارسی:

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بسم الله الرحمن الرحيم

دانشکده ادبیات و علوم انسانی

مجلّهٔ پژوهش و برنامه‌ریزی روستایی

سال نهم، شمارهٔ ۱، زمستان ۱۳۹۸، شمارهٔ پیاپی ۲۸

صاحب امتیاز: دانشگاه فردوسی مشهد

مدیر مسئول: دکتر حمید شایان

سردبیر: دکتر علی‌اکبر عنابستانی

دستیار سردبیر: مهدی جوانشیری **مدیر اجرایی:** زهرا بنی‌اسد

ویراستار انگلیسی: مرکز ویراستاری ادبیات **حروف‌نگاری و صفحه‌آرایی :** الهه تجویدی

شمارگان: ۵۰ نسخه

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

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

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

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

این مجلّه در پایگاه های زیر نمایه می‌شود:

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

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مجله پژوهش و برنامه ریزی روستایی

سال نهم، شماره ۱، زمستان ۱۳۹۸، شماره پیاپی ۲۸

شاپا: ۲۳۲۲-۲۵۱۴