Ferdowsi University of Mashhad

JRRP

Journal of Research and Rural Planning

(Peer-reviewed)

Vol.11, No.1, Winter 2022, Serial No.36

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ISSN: 2783-2791

Journal of Research and Rural Planning
Volume 11, No. 1, Winter 2022, Serial No. 36

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website:http://Jrrp.um.ac.ir/ E-mail:Rplanning@um.ac.ir

Price: 20000 Rials Subscription:25 US$ (USA) 20 US$ (other)

Indexing and Abstracting:

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Journal of Research and Rural Planning
Volume 11, No. 1, Winter 2022, Serial No. 36, Pp. 1-20
eISSN: 2783-2007 **ISSN: 2783-2791**
http://jrrp.um.ac.ir

Original Article

Neoliberalization, Separations, and Environmental Crises - Emphasizing the Ecological Crisis of Lake Urmia, Iran

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Abstract

Purpose- The ecological crisis of Lake Urmia began in 1995, and its critical state was announced in 2014. Previous studies have demonstrated that farmers and water management in agriculture sector are the main contributors to the crisis. Therefore, the purpose of this study is to investigate the role of neoliberalization in water financing, commodification, and privatization programs in reducing the water level of Lake Urmia.

Design/methodology/approach- This research is descriptive-analytical in terms of method. The method of data collection is also documentary and field interviews. The documents include the laws of First Plans (1990) to the Fifth (2011) of the Islamic Republic of Iran, the Fair Water Distribution Acts (1982), and the Provincial Agricultural, and Water Development Documents. The documentary analysis approach corresponds to the interpretive analysis paradigm of information analysis.

Findings- What the represented results and the discussions indicate is that when politics and economics are together (as it always is today), separation becomes a neoliberal trick to restore order and self-preservation, and it causes, "The separation of the elements of water, the exploiter, the private interest from the public interest, and from each other". In this way, by using fake tricks in the name of development and protection, it uses the environment and water resources to gain legitimacy and capital accumulation and transfers the costs of these conspiracies to the environment and the water source.

Original/value- Nevertheless, it seems that the policies of structural adjustment and implementation of programs in different governments have created different "separations" and they have imposed enormous environmental costs on water resources.

Keywords: Lake Urmia crisis, Commodification, Commercialization, Financialization, Separation.

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How to cite this article:
Taghilou, A. & Soltani, N. (2022). Neoliberalization, separations, and environmental crises - emphasizing the ecological crisis of Lake Urmia, Iran. *Journal of Research & Rural Planning*, *11*(1), 1-20.

http://dx.doi.org/10.22067/jrrp.v11i1.2105-1011

Date:
Received: 13-07-2021
Revised: 29-09-2021
Accepted: 13-10- 2021
Available Online: 01-12-2021

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1. Introduction

Neoliberalization has been introduced in the form of discourse and political economy theory since the 80s (Springer, 2012). Its main axes are market-based competition, private property and elitism (Harvey, 2007). The main purpose of neoliberalism is the redistribution of capital (Kotz, 2018; Harvey, 2007; Cahill, 2018) and legitimacy of social class power (Bonal et al., 2003; Igoe & Brockington, 2007). The pursuit of this goal has been through privatization, commodification (Chaves et al., 2017), and financialization (French et al., 2011). However, the most controversial part of neoliberalism is its results, which have brought diverse sorts of separation. "Separations" is the term used to explain the neoliberals and governments' tricks in rebuilding the power of the class and redistributing capital, which David Harvey calls it "dispossession". Nevertheless, it is believed that this Separation is not solely in ownership and it occurs in another topic as well.

Studies demonstrate that there are some disappointing crises and consequences in environmental realms. In contrast to the obtained results, neoliberalists have no single policy (Harvey, 2007). Some believe in controlling the crisis through neoliberalism (Higgins, 2008). Nevertheless, most studies show that neoliberalism has caused many environmental crises through the commodification and privatization of natural resources (Fioret, 2018). Today, the disapproving consequences and results of neoliberalisation in the field of the environment (Allen, 2018; Boda, 2018; Polanyi, 2001; McCarthy & Prudham, 2004) have become the most crucial topic of the debates. One of these crises is the destruction of water resources (Halpin & Guilfoyle, 2004); Higgins & Lockie, 2002. However, the impact of neoliberalization on the water was examined in the 80s (Furlong, 2010). Due to its vital role in the rural communities, especially in arid areas like Iran, water has become a zone of competition for investment (Brisman *et al.*, 2018; Furlong, 2010) and a means for the legitimization of the dominant class, and this very issue has cast a harmful impact upon the environment.

Today, in public opinion and discussions in domestic and foreign academic communities, the ecological crisis of Lake Urmia or the shrinkage of its water level is constantly being raised. The water level of Lake Urmia has been shrinking since 1995 (Khazaei et al., 2019) until its critical state is announced in 2014. With the announcement of the state of Lake Urmia's ecological crisis, a restoration headquarter is set up by the government. The purpose of this campaign was to identify and investigate factors affecting Lake Urmia's water level and to plan for its management. To this end, the restoration headquarters carried out many studies with the assistance of various research institutes and universities. In the outcomes of these research, based on the over projective nature of neoliberalism (Lindroth & Sinevaara-Niskanen, 2018), farmers and water management in the agricultural sector (Lake Urmia Restoration Program, 2017; Khatami & Berndtsson, 2013)were introduced as ecological crisis factors of Lake Urmia which were identified as neoliberalism "**Separation**" consequences. A review of resources and studies in Persian and English medium journals (Khazaei et al., 2019; Jalili et al., 2016; Alborzi et al., 2018; Ashrafi et al., 2017; Nouri & Agayie., 2012; Hassanzadeh et al., 2012) illustrates that there has not been a structural viewpoint towards the factors involved in the shrinkage of the Lake Urmia water level, and, in none of these studies, the effect of structural adjustment policies of the government in the late 1980s and after that is mentioned in the environmental crisis of the lake. However, it seems Neoliberalism, as a theory of political economy, has been the cause of Lake Urmia's ecological crisis. Adjustment policies and implementation of programs in different governments, by creating different "separation", imposed substantial environmental costs on natural resources. Privatization policies and special financial systems in the programs facilitated the uncontrolled water withdrawal from the basin, which led to a sharp shrink in the lake's water. Exporting agricultural products, eliminating the export tariffs of products, encouraging the flow of capital toward the water sector, etc., were among the policies that the government implemented in the programs' rules. According to these programs, by the year 2014, the water withdrawal from the catchment area (drainage basin) reached up to 74% (Ministry of Energy, 2017) and caused an ecological crisis in Lake Urmia. Concerning the fact that out of all gained water, about 94% is being used in agriculture with an efficiency rate of 30%.

The study of programs of the agricultural sector is a priority.

Studying the ecological crisis of Lake Urmia socially, economically, and environmentally is critically important. About 6 million people live in the Lake Urmia drainage basin (ULRP, 2017), and the majority of them are subsistence agriculture. By the reduction of the lake's water level and desertification of its bed, a potential condition has been formed for salt storms (Azizpour et al., 2015), threatening the livelihoods of Lake Urmia's verge residents. If not properly managed, migration, unemployment, social challenges, income reduction and income instability, groundwater pollution, air and soil pollution are highly expected. Therefore, the purpose of this paper is to investigate the role of neo-liberalization programs in the ecological crisis of Lake Urmia of Iran based on the interpretive paradigm and the evidence-based analysis method.

2. Research Theoretical Literature

From the perspective of David Harvey (2007), neoliberalism is a theory of political economic practices that serve to redistribute capital and restructure of class power. In his seminal work called "Brief History of neoliberalism", he proposed specific ways for the purposes of neoliberalism. Financialization, privatization, and commodification are ways of redistributing capital and restructure of power, which are the views of Harvey in his work.

2.1. Commodification

Commodification is an important principle in the reconstruction of class power and the redistribution of capital (Igoe & Brockington, 2007).

Commodification is defined as the conversion of factors of manufacture and natural resources into marketable goods (Castree, 2003). In the school of neoliberalism, the commodification of natural resources is complemented by marketization and commercialization (Gómez-Baggethun & Ruiz-Pérez, 2011), through which the redistribution of wealth and the reconstruction of class power are facilitated**.**

2.2. Privatization

Privatization is among the other methods of neoliberalization (Bakker, 2007; Islar, 2012) and is one of the most controversial and contradictory practices of neoliberalism (Hanlon, 2018**)**, which is proposed in the slogan of social justice and in practice leads to the reconstruction of class power as well as redistribution of capital. Harvey (2007) argues that neoliberalism is the theory of practices in political economics, which grows by the expansion of entrepreneurial liberties under the framework of powerful private property rights. neoliberal privatization practices are the rental utilization system and short-term contracts (Harvey, 2007), removing supervision, reducing investment in groundwater resources, transferring the ownership of public water resources to the private sector (Bakker, 2007) by modifying water distribution laws.

2.3. Financialization

Financialization is another way of transferring wealth from the people to the entrepreneurial elites and promoting class power (Christophers, 2015). Water financialization occurs through subsidies for agricultural water (Liang et al., 2019), special taxation system (Deckard, 2016), **Separation** through brokerage systems, wealth transfer traps and legitimacy of the ruling class power. However, there lies very few benefits and interests for farmers and agriculture.

3. Research Methodology

3.1 Geographical Scope of the Research

Lake Urmia is Iran's largest inland lake. This lake is located in the northwest of Iran. The Lake Urmia catchment area is approximately 52,000 square kilometers (Bakhshianlamouki & et al, 2020) with approximately 6 million inhabitants. The basin is located between the provinces of West Azerbaijan (46%), East Azerbaijan (43%) and Kurdistan (11%). The total volume of water in the basin is 7136.46 million cubic meters, out of which 5289.23 million cubic meters are being consumed (MoE, 2017) which is 75% of the total basin water, which is about three times of renewable water capacity, is being extracted. With this amount of consumption, the shrinks in Lake Urmia began in 1988 and reached a critical point in 2014. Over these years, the lake area has decreased/diminished from 52,000 square km to 2000 square km, that is, by 2014, more than 90 percent of the area and 70 percent of the lake's water have shrunk.



Figure 1: Dry trend of Lake Urmia 2000-2018

3.2. Methodology

The purpose of this research is to explain the ecological crisis of Lake Urmia corresponding to structural adjustment policies in the form of neoliberal economic-political theory. Analysis of documents as a method of qualitative analysis in studies Bowen (2009) and Xu and Croft (2017) has been introduced. In this manuscript, the source of information for analysis are the regulations related to the First (1990) to the Fifth (2011) programs of the Islamic Republic of Iran, the laws for fair water distribution (1982), and documents related to agricultural and water developments of the provinces. The evidence-based analysis method (Ahmad, 2010), which corresponds to the paradigm of interpretive analysis (Burrell and Morgan, 2017), is the method of information analysis**.**

The method of data collection is both field and evidence-based (interviews with farmers). In the evidence-based method, the word analysis unit has been used to extract information (Germain, 2012). In this research, the ecological crisis of Lake Urmia, the financialization, privatization, and water commodification are aspects of document analysis. According to the theoretical foundations and objectives of the research, marketization, commercialization, economic restructuring were key factors in the water commodity dimension; Transfer of ownership, rent system and short-term contracts, reduction of investment of government are the identified key factors in the water privatization aspect.

Implemented policies, goals, and plans of water and agriculture section of development programs in the catchment (five programs of 5-year plans), 1966 and 1982 fair water ownership and distribution laws, regional water projects, as well as statistics were purposefully specified as analysis documents of the study.

The field method was used to document and present examples. In this method, after extracting key information and rules of the programs based on keywords, research questions for interviewing farmers have been proposed. In the field data collection, 20 farmers from the catchments of Shaharchay, Godarchay, Nazlouchay, and Barandouzchay have participated as samples of the population. The reason for the selection of these catchments is due to the dam structure in the two Godar and Shaharchai rivers and the transitional channels in the other two basins. Interview questions consisted of: Why has Lake Urmia been into this situation? How do you assess the government's actions regarding supply, consumption, and distribution of water? What roles do the government's actions in agriculture play in the current situation of Lake Urmia? Moreover, what was the role of farmers in the supplying, distribution, and consumption of water, and what is it now? The above questions were translated and simplified into an understandable farmer's native language and were asked from them.

Table 1. Aspects and components of analysis

Aspects of Analysis	Components of analysis	Examples
Ecological crisis of Lake Urmia	Increase in water consumption and withdrawal from the basin (dam construction, inter-basin transport, drilling wells) and decreasing lake's water level	Reports on Lake Urmia by restoration headquarters
Commodification	Restructuring the economy, commercialization and market-making	Related reports and narratives from farmers
Corporate Governance and Privatization	Transfer of ownership, short-term renting and contracting systems, reduction in governmental investment	narratives from farmers
Financialization	Credit facilities, water pricing, taxation system	narratives from farmers

4. Research Findings

The purpose of this manuscript is to answer the question of whether the ecological crisis of Lake Urmia is due to structural adjustment policies. It is assumed that neoliberalization in the form of commodification, privatization, and financialization programs facilitated the withdrawal of water more than the basin's feed capacity and reduced the levels of the lake's water.

4.1. Commodification, water laws, programs and plans

Commodification is one of the important methods of neoliberalization (Islar, 2012). Today, water is one of the most important sources of investment. Currently, water has become an important commodity in commerce grounds and aids the redistribution of wealth (Furlong, 2010). To clarify, this question can help us: What does water have to do with commodity logic? The productive role of water, its scarcity, and its vital importance are important features of this natural element that, in combination, have made water a commodity that, in practice, has brought about the opportunity to rebuild class power and redistribute capital; nevertheless, which mechanisms in the government-run programs and documents made these features a commodity? There seem to have been at least some historical mechanisms that have made these two aspects of water ultimately subject to commodity logic and to commercial commodities.

4.1.1. Economic restructuring of production to meet consumption towards export

The first mechanism is the economic restructuring of production to meet consumer needs towards export-oriented production. The purpose of this mechanism of agricultural commercialization has been to increase the volume and value of exports and to increase the share of the agricultural sector in economic growth (Section 5 of the first program, 1990. Note 21 of the second program, 1995, Paragraph and Article 109 of the third program, 2000). To achieve this goal, various strides have been conducted in the past 27 years. Providing foreign exchange facilities (Note 29,

The First program, Clause J, Article 25 of the Second Program, Clause M, Article 113 of the Third program, Clause A, Article 104 of the Fifth Program, 2011) providing information on trade technical information and providing credit to farmers who are exporting (macro-policies of first program., article 116 of third program., clause J, article 37 of second program) mutual trade agreement with countries to increase exports of agricultural products (note 25 of the law of second program), removal of tariffs of customs and commercial benefits of exports of agricultural products (note 21 and 24 of second program's law., article 115 of third program., article 33 of fourth program., article 104 of fifth program), excising of taxes and Duties of agricultural exporting products, removal of legal restrictions, including obtaining an export license (paragraph J of article 33, fourth program, paragraph B of Article 104 of the fifth program), issuance of export licenses for subsidized agricultural commodities (paragraph F of article 114 of the Fourth program, note 4 of article 104 of the fifth program), granting purchasing facilities to the purchasers of Iranian goods in the export target markets (clause S of article 84 of the fifth program) are the most important programs and policies implemented during the five programs in the agricultural sector. As a result, of these programs, for example, in West Azerbaijan, the weight of agricultural exports in 2005 was 60197 tons, which in 2012 reached to 115706 tons, whereas exports value for 2005 were $5056 million and for 2012, $5702 million (Central Bank of Iran, 2019).

The economic restructuring of production to meet consumer needs towards production aims at exporting, most of all is the witness of the productive role of water and structures created on surface water, so there are numerous mechanisms, plans and projects in the water and agriculture sectors, particularly operations related to irrigation and land drainage networks were the highest priority in the programs (clause 3 of the first program, 1990). In addition, the policy of the first development program (1990) emphasized the growth of capital and intermediary productions of the economy with emphasis on agricultural inputs, water, and soil. The government financed the surplus funds for water projects from non-absorbed civil development credits in the second development program (note 74 of second program). In the third development program (2000), establishment and development of census networks, measuring water consumption in the agricultural sector (article 106 of the third program), increasing irrigation efficiency and water productivity and increasing the level of area under cultivation, adjusting the route of water by creating diversion tunnels (clause b of article 109 of third program) was actions taken by the government and the private sector. In the fourth development program (2005), the focus on the role of water production over pre-existing programs is increased. In this program, actions such as the use of modern irrigation and deficit irrigation methods, irrigation efficiency, and a 25% increase in water efficiency per cubic meter and its allocation to high economic value crops (clause A of Article 17, Fourth program), allocating 2% of the total appropriations for surplus capital assets plans to water sector credits for containment and transfer of border waters (paragraph J of Article 17, Fourth program), development of irrigation and drainage networks in two million hectares of irrigated agricultural land (paragraph A, Article 18, Fourth program), spending on reuse and surplus water resources from water resources in water network development (Article 63 of fourth program) was implemented. Implementation of structural and non-structural projects (paragraph A of Article 19 of the fairwater distribution law 1982) across all plains of the country, reinforcing at least 25% of groundwater with control of 12.5% of surface water control and 12.5% through watershed and aquifer management (Article 140, fifth program), annual reduction of at least 1% of existing water volume, especially in the plains with negative groundwater balance, use of water savings for development of new agricultural lands (Article 141, program 5), providing the needed water of the farmers in volume based on harvesting pattern (Article 143 of program 5) was of the most important actions, which are done in the Fifth development program. Development of agricultural export policies and other complementary policies, such as establishing food security and reducing dependence on other countries, increased the value of water and increased the capital's focus on these natural resources. It was based on this program that in the Lake Urmia catchment area, 200,000 hectares of dry land had been converted into irrigated land (Lake Urmia Revival Headquarters, 2015) through 52 dams operated by the Ministry of Energy and

the Ministry of Agriculture and increased the area of cultivated land by 8 times. Today, the volume of water gained from these structures is 2356 million cubic meters per year, which accounts for about 167% of the programmable basin's water (Ministry of Energy, 2017), which refers to the "**Separation**" of rivers from the lake. The rationale behind this economic restructuring is, in fact, water conversion policies as an important intermediary commodity in agricultural production and capital redistribution. Creating structures on surface water and controlling 90% of flow of the water toward the lake, creating structures of transferring water to dryland, transboundary water transfer (Revival Headquarters Report, 2015), "Volume-based water sale to beneficiaries by regional water companies, hourly sales of water by farmers, water right transfer, selling water utility license by farmers (farmers quotes, 2018) is an important example of water commodification in the region, which is very tangible.

4.1.2. Marketing and Commercializing Water

The second mechanism is the marketing and commercialization of water. This mechanism is more related to water itself and the results of the first mechanism. This mechanism created two types of separation - which we will discuss later - here is the argument that water must be commercialized, that is, to be able to buy and sell the water, which is somehow "separated" of water from the natural resource group and conversion of it into a commercial commodity, so it must have a supplier and an applicant, which is the first separation of this mechanism. The second "separated" took place when the water producer was separated from the consumer. Thus, this formed two types of water market separation. With the creation of regional water companies in 2004, water producers and distributors were created and on the other hand, it was farmers, government agencies, private companies, and the public who formed the water market applicants.

> *"When we were running the water system we were dredging and drilling the canals ourselves ... We spent on water and brought water to the farm ... But since the companies came and built the dams we no longer spend on transporting and storing water and we buy our own water right from the dams and canals of the regional water company[1]....."*

Important processes have been involved in the marketing and commercialization of water. Assigning new water gain rights to farmers and receiving subscription rights by regional water companies (Article 63 of fourth development program), water management economization (Article B first program, Article 17 of fourth program, Article 53 of fair water distribution law 1982), exchanging the water gain right documents (Paragraph B of Article 141 of fourth program), licensing the sale of high- discharge wells to other farmers by owners of wells (article 17 of the fair water distribution law 1982), water export and import programs (Article and clause 17, fourth program, Article F, Article 140, Fifth program), Strengthening local water markets (Article 106, third program), guaranteed purchase of surplus water by private sector investors by the government (Article 142 fifth program), development of water tourism in the form of orchards villas, crop cultivation expansion of the strategic products (Article 109 of the third program, Article 141 Fifth program) by the government and the private sector such as beetroot, apples, etc., abolition of water infringement law, removal of water supervision rights (Islamic parliament of Iran ., 1982), drilling unauthorized wells and ratification of the licensing law (article 3 of the fair distribution of water law; IPI., 2010), removing water police from water preservation laws (Rooh-Alamini, 2018), issuing licenses to deepening the wells of the licensed wells instead of destroying the drilled wells in other wells frontage that have resulted in their water depletion (paragraph A of Article 14 of the Fair Water Distribution law 1982) are the most important actions that have played an important role in marketing and creating greater demand for water. Converting the dryland farming to water land farming in the lake catchment market had its role in the marketing for selling the water. Because of forming more water demand, dam construction and licensed as well as unlicensed well drilling projects in the catchment is being performed with high intensity. Tender announcement for water projects such as dam construction, well drilling, change of system and transfer for production and distribution of water

1. Interview with Farmers 2018, The fourth note

has been increased in the commercial market; in a way that after the construction of regional water companies, 13 dams in Lake Urmia catchment has been constructed. Water supply from all surface structures reached about 2356 million cubic meters per year that make up more than 74 percent of the total water inflow of the basin (Ministry of Energy, 2017), which is about three times more than the standard water gain (Figure 2).

Dam	The volume of water/2019
Mahabd	185
Bookan	808
Alavian	123.4
Hasanloo	94
Shahr Chay	157
Qaleh Chay	40
Sarooq	40
Zola	60
Tajloo	3
Gerdkandi	6
Cheraqvis	86
Drik	21
Nahand	26

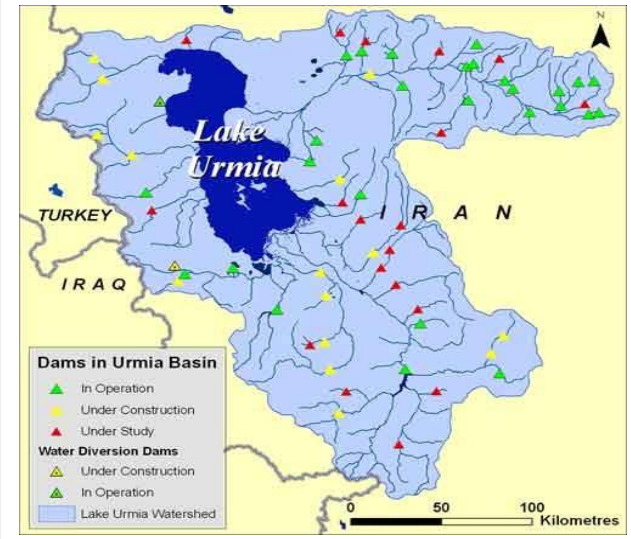


Figure 2. Water volume of important dams and distribution of dams in the watershed

4.2. Corporate Governance and Privatization, programs and water laws

Water privatization has been introduced since the 1980s (Hall & Lobina., 2008). The term privatization refers to "the processes by which water resources are used by the private sector to generate profits with a commodity that was previously a common resource" (Karunananthan, 2019, p. 5). Speaking of water privatization, this question is raised: which properties of water are subjected to privatized logic and create profitability for the private sector? Production services, distribution services and water itself as a marketable commodity have made water an important source of private-sector profitability and investment. Water is a public natural resource and has been referred to in all land development programs and laws, but in practice by specific mechanisms has caused it to "separation" from its actual role, which Harvey (2007) calls it invisible dispossession. It is water privatization processes and mechanisms that include the transfer of ownership, short-term renting and contracting systems and the reduction of government investment that provides the legal framework and conditions necessary for the private sector to generate profits.

4.2.1. Transfer of ownership

The first mechanism is the transfer of ownership through which the owner has the right to exploit, transfer, sell, etc. Due to public ownership of water, there is no transfer of ownership of water itself, and water-dependent production and distribution services have been transferred to the private sector, through which the water itself has been owned by the private sector. **Separation** and wealth assembling has been done through specific laws in the programs and laws of fair water distribution.

Issuance of water documents to right holders and owners (article 107 of third program), transfer of ownership of water facilities to companies (paragraph A of article 133 third program), transfer of property, facilities, machinery ownership and any ownership of water facilities to companies (article 7 of N clause fourth program, article 29 and 32 of the fairwater distribution law of 1982), removal of government supervision right over the distribution and consumption of water in accordance with the 1966 water distribution law of 1982, restraining water in cooperation with the private sector (article 75 fourth program), issuance legal act of water utilization for all right holders and holders of water allocation license (article 141

of clause b of the fifth program); delivering water distribution to the nongovernmental sector (Article 143 of clause b of the Fifth program) were programs implemented by the government.

> *"... the cooperative water company is making our water flow poor and they no longer possess their past power ... so we can no longer control the water gain of the people who live in the upstream of the river, the government also does not control ... in the villages of the upstream parts of the river due to the large cultivation and expansion of orchards in the fields, the water gain is abundant and unrestricted, and people draw large quantities of water from the river. Nowadays the water does not reach the villages in the downstream parts of the river ..."*[1]

The laws approved in 2004 paved the way for the formation of regional water companies, the entry and control of contractors in the water production and distribution sector. In the form of these companies, the following activities were practically transferred to the private sector (Regional Water Company of west Azarbaijan, 2004).

- Conducting studies needed to identify, develop and exploit water resources
- Preparation and implementation of water supply and water transfer plans and projects for different consumption sectors, irrigation and drainage networks
- Operation and maintenance of water supply and transition facilities and structures
- running the law on fair distribution of water and other laws and regulations related to the water
- Granting subscriptions to applicants based on specified tariffs within the framework of the laws and regulations.
- Delivery of needed water to subscribers in different sectors of consumption based on tariffs approved by the relevant legal authorities.
- Purchase of services from a non-governmental sector for the study, administration, operation and maintenance of water facilities and structures.
- Offering domestic corporate bond and pre-sale of water subscriptions
- Engaging the public and NGOs in implementing water resources development, irrigation and drainage projects
- Performing business operations and transactions within the framework of General Assembly approvals and related laws and regulations that are necessary for the purposes and benefits of the company.

4.2.2. Short-term rental and contracting system

The second mechanism is the short-term renting and contractual system, whereby the water or water share of a beneficiary are transferred to another individual contractor for a given period. This contract is concluded between farmers, government and farmer, company and farmer. Important processes have contributed to the formation of the tenancy system. Transfer of water resources and arable lands to the villagers under appropriate and provisional conditions (Article 108 Third and Fourth program); conditioned issuance and extension of gaining license to reduce water pollution by consumers (article 134 third and fourth program, article 23 of the fair water distribution law 1982), exchange of operational documents by short-term contracts (article 141 fifth program), issuance of temporary licenses for use of water to farmers by the ministry of energy (article 18 of the fair water distribution law 1982) are the laws that has led to the instability and disruption of agricultural water resources. These "separation" laws created an emotional sense of owning and protecting from water resources; the result and the reaction of the farmers to these laws, the short-term view toward the water use, surplus use of water, stealing water and drilling of unauthorized wells were for supplying secure agricultural water in the region. According to the Urmia Lake Restoration headquarters and Ministry of Energy (2017) report, more than 40,000 unauthorized wells have been dug in the area over the last 30 years in the Lake Urmia catchment, which drains about 1.5 billion cubic meters of water annually.

4.2.3. Reducing government investment

The third mechanism is to reduce government investment in the water sector and attract private investment. This mechanism can be defined as the "separation" of the benefactor of the people's interest from the people. Investing in water is done in three parts: production, distribution and consumption. Increase in the cooperation with the private sector in new water resources investment (Article 75 Fourth program), investment and

1. Interview with farmers 2018, The second and 17th note

ownership, management and operation of dams and water supply networks by the private sector in compliance with the general policies of article forty-four of the constitution law (clause b, article 142, fifth program) and co-investment with non-governmental sectors up to 49% in agriculture and water resources (article 149 of the fifth program) has been the rules of investment in the water sector. Under these rules, more government investment has been made in the area of surface water containment and transition of it, and in the consumption sector, the government has drastically reduced its investments; even in the water production sector, its share has dropped to less than half. The private sector is more eager to invest in the area of surface water containment and transition because of its high profit and benefit. Most of these laws expanded private-sector investments to gain benefit from public resources. Extensive dam constructions, inter-basin transmission of Zarrineh Rood water to Tabriz (150 million cubic meters per year), Zola to Gharabagh and Govarchin Ghaleh!! (3.7 million Cubic meters per year), Silve to Naghadeh and Lake Urmia (190 million cubic meters per year), and Zab River to Naghadeh plain and Lake Urmia (under construction) were instances of such investments.

4.3. Financialization, programs and plans

The term financialization refers to allocation mechanisms such as facility payment credits, pricing the water, and water taxation systems, which its aim is to transform water resources management and water services into financial assets (Karunananthan, 2019). Aspects of water distribution and production are characteristics of water that, in combination with several specific mechanisms, have been the function of the financialization logic.

4.3.1. Separation of People from Public Interest

The first mechanism is to dispose people from the public interest. This separation is through the provision of low-interest credit facilities from public credits to investors; this mechanism has been introduced in most of the development programs, thereby creating a significant opportunity for greater profitability in the water sector that can be exploited. This can be defined as "separation" of people from the interests of public resources. Definite allocation of 30% of annual water credits as transferable facilities to private sector investors (Note 76, second program,) paying 70% of interest and fees on transferred water facilities to private sector (Note 77, second program), allocation of 25% of banks' annual facilities to the water and agriculture sector (clause J of Article 106, third program and Article 10, Fourth program), paying low-interest facilities from the National Development Fund to water investors (clause Z of Article 84, fifth program) were programs implemented by the government in the water sector and created the situation for gaining wealth in this sector. According to the Ministry of Agriculture (2011), by the end of the third program, about 14.3 percent of banks and credit institutions facilities specified to the private sector in the water-related drudgeries, and at the end of the fourth program, 20 percent of commercial banks' facilities were allocated to the water sector.

4.3.2. Tariff on water

The second mechanism has been the allocation of tariff on water in water distribution sector and water production services instead of real value of water. Pricing the natural resources has been one of the methods of capital redistribution and class power restructuring (Harvey, 2007). Water tariffs have been emphasized in development programs and the fair water distribution act. Determination of prices according to the law on stabilization of crop water rates (article 107 of the third program), determination of the economic value of water in the basins considering the intrinsic value and investment (clause J of article 17, fourth program), determination of subscription right for water by the regional water company (article 63 fourth program), pricing the water based on the costs of the water extraction (article 53), fair water distribution act 1982 are some of the water laws that have been involved in allocation of tariffs on water. Allocation of tariffs on water has led to the 'Separated' of water from its essence as a natural resource, which is referred to in the commodity sector. Under these rules, regional water companies created numerous dams in the catchment to sell surface water, regardless of ecological issues. According to Lake Urmia Restoration Headquarter (2015), 53 dams were built on seasonal and permanent rivers, and about 90 percent of the surface flow to Lake Urmia was reserved for sale and volume delivery to farmers, in a way that these companies were not satisfied to release the lake's share. This has in some ways demonstrated that the expropriation of public resources has been in the private sector's interests and benefits.

Neoliberals believe that pricing water is effective in maintaining and using it properly (Webber et al., 2008), but it is the actual pricing system that has the most impact on optimal water use. The current form of water pricing in the Lake Basin has been inefficient and in practice has been led to separation of the public ownership and resulted in the transfer of capital to service providers and water extractors. Determining the correct price of water is influenced by the economic value of the resources and the level of service provided (Toan, 2016)

However, in the Lake Urmia Basin, water consumption tariffs are not dependent on water value (Article 17 of paragraph J, fourth program) and it depends on water services, extraction costs and harvest rates.

4.3.3. Low rates or elimination of income tax

The third mechanism is decreasing price rates or elimination of income tax on water-related activities. In the direct tax law program, all income from agricultural activities is tax-exempt (Ministry of Economic Affairs and Finance, 2002), the elimination of taxes on agriculture and water sector is applied to all development programs. The tax exemption used by the government to attract private sector funds in the water sector have provided an important platform for investment, most of which has been in water supply and transport. Based on the water tax exemptions and the elimination of water tariffs in groundwater extraction, the number of wells increased from about 45,000 to over 90,000, and on average 7 wells were drilled per square km of the catchment area, thereby increasing the extraction rates of these wells up to 1717.4 million cubic meters (Cultural and Social Committee of Lake Urmia Revival Headquarters, 2015).

5. Discussion and Conclusion

In this article, the purpose of the researcher is to express and reveal the relationship between the adjustment policies and the crisis in Lake Urmia. According to the exploratory studies in the literature review, it was assumed that there was a strong relationship between privatization, commodification, and financialization policies with increasing water extraction over the feeding capacity of the Lake Urmia's catchment. By examining the relevant documents and the programs implemented, it was revealed that the government has shifted pressure on water resources by implementing structural adjustment policies to safeguard the interests of the ruling class. The results, of course, do not support all the theoretical assumptions of neoliberalism as cited in most of the literature, for the weaknesses and inadequacies of experiences in the Lake Urmia catchment severely limit the conclusions.

5.1. Economic restructuring and the water crisis

The restructuring of the economy towards exports has affected the production role of water as the main input of production. As a result, it concentrated water projects more on the production and distribution of water in the form of surface water control and transition and marginalized consumption management programs. In fact, the export of agricultural products is the transfer and export of virtual water. However, the presented results are inconsistent with Carr et al.'s (2013) study because the results of their research indicate that, the distribution of virtual water within a network of exports and imports in the studied countries has contributed to a balanced distribution of water across different geographic regions. However, this result is a little puzzling for Iran, which lies in the dry belt of the world and it has a traditional kind of agriculture.

Another point in the economic restructuring is the emphasis on economic growth through export of products, which its expansion has been highlighted in the results. The link between economic growth and water distribution in the area, which was the case of the study, is in line with the studies of Tamea et al, (2014), who identified economic growth as the propellants of water export. The relationship between water consumption and economic growth has also been clearly stated in the studies of Ebrahimi, (2016), Barbier, (2004) and Yue et al. (2017). The interpretation is that creating economic growth and increasing agricultural share in it requires trade and more consumption of natural resources in the first place. According to the presented results, this growth in the Lake Urmia's catchment has occurred more by increasing the area under cultivation with more water consumption, than increasing productivity; Heidari's (2014**)** study confirms this idea, but one should bear in mind that strong economic growth are eminently linked to the consumption of water resources, and it could result in its "**Separation**" from environmental consequences and water crises. This is the issue that David Harvey (2007) has repeatedly mentioned in his book entitled A Brief History of Neoliberalism, but it should also be

noted that this "separated" is not merely explained by the logic of redistribution and accumulation of capital. It is deduced that in addition to the redistribution of wealth, the adoption of food security policies without dependency on other countries by the political ruling class to rebuild the power has fueled this “separated”.

5.2. Food security and the water crisis

The creation of food security by government (abundance of subsidized/low-priced food) has led to the withdrawal of water beyond the capacity of the catchment in two ways. First, creation of the food security which is done by keeping crop prices down; to reduce food prices, adding tariff on water without calculating the intrinsic price of water itself, and under the "Crop Water Stabilization" act, which reduced the price of water in food production and it has reduced the conservation value of these resources, which has led to high water consumption**.**

> *"... We get the crop but their price is low. It is not cost efficient for us and we have to cultivate our land for more production every year so we can get more crop and increase our income ... we changed our seeds for more production, and these seeds need more water. Previously we used to plant wheat and irrigate two or three times, but now, we plant wheat and irrigate six times…"*[1]

Nonetheless, this should not be interpreted like the way that real pricing reduces water consumption. In fact, this rise in the water prices have helped the commodification of these natural resources to be bought and sold on the market, which has led to the extraction of water for trade, whether in the form of direct sale or in the form of the product trade**.**

5.3. Commercialization and water crisis

A study by Sangameswaran (2009) in India shows that the commercialization of water is rapidly expanding and is being emphasized by the scientific and legislative communities. The results of the present study also indicated that the government has taken significant indirect steps to expand the water trade. Water trading has been studied in various research under the title of virtual water trading (Hoekstra, & Hung, 2002; Hoekstra, & Hung, 2005). The important point is that virtual attribute does not mean unreal, but frankly, it should be said that virtual water is completely real water. The business appears to have proposed a strategy to mitigate water scarcity in geographic areas but in practice has acted as a private sector profit gaining strategy. If this were not the case, a country like Iran with extremely severe water shortages would not have exported any agricultural crop, even though the results showed an increase in crop exports (virtual water). In addition, the results presented indicated that water trade has been common among farmers in local level in the catchment areas. The water transfer in the catchment, which is mentioned in the results, is an example of this trade. The difference between this paper and previous studies is its potential in providing some indications of the local water trade.

There may, of course, be another interpretation that scarcity, an attempt to protect the vital value of water, creates its trade. However, these three characteristics have created the conditions for private sector activity to enter the field under the title of development (increased productivity), with the aim of protection, and the invisible, behind-the-scene logic of profit maximization in the region. It is these characteristics of water, of course, that have posed a major problem in the empirical expression of the water trade for the purpose of capital accumulation and redistribution. Water conservation and productivity enhancement under the title of development and social justice can be implemented without water privatization (Lobina & Hall, 2000); nonetheless, Hall and Kuiper (1998), Bawa et al (2009) show that commercialization has been accompanied by privatization

5.4. Privatization of ownership and water crisis

Privatization of ownership of water itself in the form of transferring water ownership has not been done in a specific pattern. McKenzie et al., 2003 have also pointed to this issue in water privatization. Water itself, distribution monitoring and allocation, pricing, and services are features that have been addressed in the privatization debate (Draper, 2008**)**, which our results confirm these factors as well. The main problem in this part is the weakness of the experiences of water privatization in agriculture sector and its environmental impacts. Therefore, from this perspective, this study is unique. Given the general rights and legal limitations of water ownership transfer, lien, tenancy system and short-term contracts in the agricultural water sector, also seen in the studies of Lefkoff and Gorelick (1990), has been the private sector profit maximizer trick. These short-term

1. Interview with farmers 2018, The third and furth note

contracts, or in another term, "separation" of the sense of ownership and protection, have been involved in the water crisis, because, first, short-term contracts have failed to make profitable expenditures, no protection-related investment, which is not invested on water, and water only used to produce high-value goods with high levels of consumption without supervision of government in pricing has been allocated and used in line with bad environmental consequences. Second, short-term contracts and renting systems are not a guarantee of profitability against environmental threats, such as drought in coastal surface water, but by creating water structures such as dams by these companies, this has provided confidence to temporary tenants, and guarantees a renting and contract-based system.

The expansion of privatization and the spread of the renting and contracting system have been subject to a decline in government investment. Since the creation of water companies, government investment in water consumption management has fallen sharply. These investments by government have also fallen to less than half in production and transmission. Studies indicate that government investment in water is effective in reducing the water crisis. In many countries, street protests against privatization have shown the effectiveness of presence of government in the water sector (McKenzie et al., 2003; Prasad, 2006). According to the results, it is not claimed that the government did not have the necessary investment; rather, it is probable that government investments were more in the production and control of water than in consumption, distribution, and protection. Reducing government's direct investment in the water sector has benefited the private sector in three ways; first, the space for private sector investment has been wide open and regional water companies have invested in water production. Second, the small investment made by the government in the production sector has played a role in creating the water market for consumption and private sector investment. In other words, government's investment in water production has caused a "separated" of water producer with water consumer, which this "separated" is filled with water distribution and transition system service companies and modified seeds, the effects, which are mentioned above. Third, the results also show a decline in government's investment in water production. Nonetheless, wherever there is no direct investment in water production, it has played a role by the provision of credit facilities to the private sector.

> "…in the past due to water scarcity (the river as the main sources of agriculture) the value and importance of water was high and people regarded it as one of the sacred and magical blessings of God ... since the expansion of privately dam building, water canalization and drilling of wells in agricultural fields the sanctity of water disappeared, and people used God's blessings without thanksgiving, without restraint and without a culture of saving it... When the government canalized and constructed dams and drilled wells, the quantity of the water grew and people used it countlessly and planted new crops and have transformed their lands to the gardens and entertainment fields to earn more money …"[1]

5.5. Water sector credit facilities and water crisis

Water sector credit facilities have been offered as loans from public sector sources to the private sector with low-interest, which has been addressed in Prasad's (2006) study. These facilities are more for the production and distribution of surface water than in the conservation and consumption part, as evidence suggests that investments in surface water have taken place and no specific action have been taken for groundwater. In the part of surface water, the designation of water control and transition structures projects is high and it is highly attractive to the private sector in maximizing profits; in other words, credit facilities have been in favor of private investor firms to increase water productivity. Providing low-interest credit facilities from public sources has led to greater control of the water for sale through the private sector and the regional water company without letting the lake share to be released.

In addition to providing low-interest facilities, eliminating taxes on production, investment, and value-added from agriculture in general and from water in particular in all economic programs and laws of Iran, was among the other government actions in the water sector, which were in benefit of investors and companies, which was called **Separation** of people from the public interest resources, as mentioned above. The elimination of taxes and consequently the elimination of government spending in the water sector have

1. Interview with farmers 2018, The 13th note.

imposed and transferred costs on water resources and have resulted in the loss of water resources. This interpretation is consistent with the results of World-Ecology and Ireland: The Neoliberal Ecological Regime (Deckard, 2016), Kilimani (2015), and Bluffstone (2017) studies of environmental taxation in transition economies. Spratt (2012) also stated in his study that taxing environmental resources has a great impact on controlling pollution and water loss. The interpretation of the government's intention in elimination of the tax on agriculture and the environment is not too complicated. The government has two major goals in tax evasion. First, lowering agricultural product prices and creating food security and preventing public discontent with the ruling class. Second, attracting private sector investment and lowering their costs. Since the tax is not levied on agriculture and water, the government has not invested in the protection of surface and groundwater, and the private sector and the beneficiaries have not invested in water conservation as well, especially in groundwater, for the reasons mentioned above. All the costs has been transferred to the environment and the water crisis in the Lake Urmia catchment is the result of it. In other words, tax evasion eliminates incentives to safeguard public property and act for the benefit of private investor companies. Tax cuts, in addition to environmental impacts, have also been effective in tariffing water, thereby exacerbating the water crisis.

5.6. Tariff and water crisis

Water tariffs were in the water production and distribution services sector and were not for water itself. Tariffing on water without the price of water itself or the **Separation** of water from its natural value has moved most of the costs from the investor to the environment. It should not be thought that pricing alone can reduce consumption (Berbel & Limon, 2000), but it is a solution, in which the protection of public rights and water is an important principle. Pricing is efficient only when investment and cost is also being done in consumption (Watto & Mugera, 2016) and conservation (Abu-Zeid, 2001). The most important issue here is not the price of water, but the system of pricing. The real price of water is the cost, which includes three components: supply and distribution costs, economic costs and resources, environmental costs (Toan, 2016) that the operator and investor must pay. The main problem in this section is the lack of evidence, statistics, and information from water price and its pricing, which has made it difficult to analyze the results. However, the results showed that none of these three components was observed. According to water laws and regulations, it is inferred that economic costs, distribution and resources, have not actually been realized due to subsidies in the form of tax exemptions and low-interest facilities. In addituin, environmental costs have not entered into the play in the pricing system at all, which in a way led to shift of public interest to the pockets of the operators and the investing companies and by not paying the environmental costs, the water crisis has been formed.

Theoretical framework of the article, findings and discussion to answer the research question about the role of neoliberal programs in the ecological crisis of Lake Urmia indicate that neoliberal discourse with methods and tricks of privatization, commodification and financing, has had a clear impact on the crisis of Lake Urmia. Privatization and commodification have been achieved by achieving economic growth through agricultural development, increasing agricultural exports and foreign exchange earnings, increasing employment, ensuring food security and, in general, developing the commercialization strategy of the agricultural sector through minimization. Environmental watersheds and the development of irrigated lands have been achieved with the least attention to increasing productivity. Also, the trick of financing the neoliberal discourse in the Urmia Lake crisis is being pursued by directing credit facilities to the private sector and water companies to invest in production and distribution, failing to implement the pricing system and setting real water tariffs, reducing government investment. In the consumption management and protection sector and finally the elimination of taxes from the water consumption sector.

It is not claimed that this study addresses all issues related to the relationship between structural adjustment policies and the water crisis. However, in its own capacity, it can provide a new understanding of the social relationships in the organization of water production and consumption mentioned in the studies of Jepson et al., (2017), the relationship between the power/legitimacy with water resources and the good governance of water management of Empinotti et al. (2019) and Loftus (2015). The results and the arguments presented here show that when politics and economics are together (as it is always today), separating

becomes a neoliberal trick to restore order and self-preservation, and it causes, the "separated" of the elements of water, exploitation, private interests from public interest, and providing the environment and water resources for legitimacy and accumulation of capital through fraudulent trickery under the title of development and protection of class sloganistic values (capitalist and of course the ruling class) and they transfers the costs of these conspiracies to the environment and the water source.

To develop knowledge of the relationship between class power restructuring and capital redistribution with scarce resources such as water, it is necessary to study the relationship between the power and water in non-liberal political systems as well as governance and ruling over the operators of water. I will leave the first issue as an open issue and continue the second, showing how forms of governance with particular subjectivity are linked to the system of water exploitation and water resources in Iran.

This paper has a theoretical and fundamental approach to the relationship between political economy and power with biological resources (water). Researchers consider it necessary and effective to study thematic and spatial-spatial studies at geographical scales to expand knowledge in this regard.

Acknowledgments: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

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Journal of Research and Rural Planning
Volume 11, No. 1, Winter 2022, Serial No. 36, Pp. 1-20
eISSN: 2783-2007 **ISSN: 2783-2791**
http://jrrp.um.ac.ir
Original Article

نئولیبرال سازی، جداشدگی‌ها و بحران‌های زیست‌محیطی- با تأکید بر بحران اکولوژیکی دریاچه ارومیه، ایران

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چکیده مبسوط

۱.مقدمه

بحران اکولوژیکی دریاچه ارومیه از سال ۱۳۷۷ شروع و در سال ۱۳۹۴ وضعیت بحرانی آن اعلام می‌شود. مطالعات نشان می دهد که کشاورزان و مدیریت آب در بخش کشاورزی به عنوان عاملان اصلی بحران هستند. ولی به نظر می رسد سیاست‌های تعدیل ساختاری و اجرای برنامه‌ها در دولت‌های مختلف «جداشدگی» های مختلفی را ایجاد کرده و هزینه‌های زیست‌محیطی زیادی را بر منابع آب تحمیل کرد. در حوضه آبریز دریاچه ارومیه، حدود ۶ میلیون نفر زندگی می‌کنند که اکثریت آن‌ها دارای معیشت مبتنی بر کشاورزی هستند. با کاهش سطح آب دریاچه و بیابانی شدن بستر آن، شرایط مناسبی برای طوفان‌های نمکی ایجاد شده و معیشت ساکنان حاشیه دریاچه ارومیه را تهدید می‌کند. در صورت عدم مدیریت صحیح آن، وقوع مهاجرت، بیکاری، چالش‌های اجتماعی، کاهش درآمد و ناپایداری درآمد، آلودگی آب‌های زیرزمینی، آلودگی هوا و خاک بسیار محتمل می‌باشد. لذا هدف این تحقیق بررسی نقش نئولیبرال سازی در قالب برنامه های مالی سازی، کالایی سازی و خصوصی سازی آب در کاهش سطح آب دریاچه ارومیه می باشد.

۲. مبانی نظری تحقیق

نئولیبرالیسم از دیدگاه دیوید هاروی (۲۰۰۷)، نظریه‌ای در مورد شیوه‌های اقتصاد سیاسی است که در خدمت بازتوزیع سرمایه و بازساخت قدرت طبقه است و در اثر خود بنام تاریخ مختصر نئولیبرالیسم، شیوه‌های خاصی را برای اهداف نئولیبرالیسم ارائه داد. مالی سازی، خصوصی‌سازی و کالایی سازی از شیوه‌های بازتوزیع سرمایه و بازساخت قدرت از دیدگاه هاروی در این اثر است. نئولیبرال سازی از دهه ۸۰ در قالب گفتمان و تئوری اقتصاد سیاسی مطرح شد. محورهای اصلی آن، رقابت مبتنی بر بازار، مالکیت خصوصی و نخبه‌گرایی است. هدف اصلی نئولیبرالیسم، بازتوزیع سرمایه و مشروعیت‌بخشی به قدرت طبقاتی است. شگرد دستیابی به این هدف، خصوصی‌سازی، کالایی‌سازی و مالی‌سازی بوده است؛ اما بحث‌برانگیزترین بخش نئولیبرالیسم، نتایج آن است که «جداشدگی» های متعددی را به همراه آورده است. «جداشدگی» اصطلاحی است برای تبیین ترفند نئولیبرال ها و دولت در راستای بازساخت قدرت طبقه و بازتوزیع سرمایه استفاده شده است که دیوید هاروی از آن به‌عنوان سلب مالکیت نام می‌برد. ولی اعتقاد بر این است که این جداشدگی، تنها در مالکیت نیست و در زمینه‌های دیگر نیز اتفاق می‌افتد.

۳. روش تحقیق

این تحقیق از نظر روش، توصیفی- تحلیلی است. روش جمع‌آوری اطلاعات نیز اسنادی و میدانی (مصاحبه با کشاورزان) است. اسناد شامل؛ قوانین برنامه‌های اول (۱۳۶۸) تا پنجم (۱۳۸۹) جمهوری اسلامی ایران، قوانین توزیع عادلانه آب (۱۳۶۱) و اسناد مربوط به توسعه کشاورزی و آب استان‌ها می باشند. روش تحلیل اسنادی متناظر بر پارادایم تحلیل تفسیری روش تجزیه‌وتحلیل اطلاعات است. در جمع‌آوری اطلاعات میدانی ۲۰ کشاورز از حوضه‌های آبریز شهرچای، گدارچای، نازلوچای و باراندوزچای به‌عنوان نمونه همکاری کردند. علت انتخاب این حوضه‌ها به جهت وجود سازه سد در دو رودخانه گدار و شهرچای و کانال‌های انتقالی در دو حوضه دیگر است. سؤالات مصاحبه عبارت بودند از: چرا دریاچه ارومیه به این حال افتاده است؟، اقدامات دولت در خصوص عرضه، مصرف و توزیع آب را چگونه ارزیابی می کنید؟، اقدامات دولت در خصوص کشاورزی چه نقشی در وضعیت موجود دریاچه ارومیه دارد؟ و نقش کشاورزان در عرضه، توزیع و مصرف آب چگونه بود و الان به شکلی است؟

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۴. یافته‌های تحقیق

آنچه نتایج و مباحث ارائه شده نشان می‌دهد، این است که؛ زمانی که سیاست و اقتصاد در کنار یکدیگر باشد (که امروزه همیشه این‌طور است) جداسازی به‌عنوان ترفند نئولیبرالیسم برای برقراری نظم و حفاظت از خود تبدیل می‌شود و این ترفند موجب، «جداشدگی» عناصر آب، بهره‌بردار، منافع خصوصی از منافع عمومی و از همدیگر می‌گردد. از این طریق با بکارگیری مکر و حیله‌های دروغین بنام توسعه و حفاظت، محیط‌زیست و منابع آبی را برای کسب مشروعیت و انباشت سرمایه استفاده می نماید و هزینه‌های این دسیسه‌ها را به محیط‌زیست و منبع آب منتقل می‌کند. با این وجود، به نظر می رسد سیاست های تعدیل ساختاری و اجرای برنامه ها در دولت های مختلف "جدایی" های متفاوتی ایجاد کرده و هزینه های زیست محیطی هنگفتی را بر منابع آب تحمیل کرده است.

۵. بحث و نتیجه‌گیری

چارچوب تئوریکی مقاله، یافته‌ها و بحث برای بررسی پاسخ به سئوال پژوهش مبنی بر تاثیر نقش برنامه‌های نئولیبرال در بروز بحران اکولوژیکی دریاچه ارومیه بیانگر آن است که گفتمان نئولیبرال با شیوه‌ها و ترفندهای خصوصی‌سازی، کالایی‌سازی و مالی‌سازی، تاثیر آشکار و غیرقابل انکاری بر بحران دریاچه ارومیه داشته است. خصوصی‌سازی و کالایی‌سازی با تاکید بر رشد اقتصادی، افزایش میزان صادرات و درآمدهای ارزی ناشی از آن، افزایش اشتغال، تامین امنیت غذایی و به طور کلی، توسعه استراتژی تجاری‌سازی بخش کشاورزی از طریق کمینه‌سازی حقابه‌های زیست‌محیطی و توسعه اراضی زیرکشت آبی با کمترین توجه به افزایش بهره‌وری محقق شده است. همچنین، ترفند مالی‌سازی گفتمان نئولیبرالیسم در بحران دریاچه ارومیه از طریق هدایت تسهیلات اعتباری به بخش خصوصی و شرکت‌های آب برای سرمایه‌گذاری در بخش تولید و توزیع، اهمال در تعبیه نظام قیمت‌گذاری و تعیین تعرفه واقعی آب، کاهش سرمایه‌گذاری دولتی در بخش مدیریت مصرف و حفاظت و در نهایت حذف مالیات از بخش مصرف آب باعث تشدید بحران اکولوژیکی دریاچه ارومیه شده است.

کلیدواژه‌ها: بحران دریاچه ارومیه، خصوصی سازی، مالی‌سازی، کالایی‌سازی، جداشدگی.

تشکر و قدردانی

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

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How to cite this article:
Taghilou, A. & Soltani, N. (2022). Neoliberalization, separations, and environmental crises - emphasizing the ecological crisis of Lake Urmia, Iran. *Journal of Research & Rural Planning*, *11*(1), 1-20.

http://dx.doi.org/10.22067/jrrp.v11i1.2105-1011

Date:
Received: 13-07-2021
Revised: 29-09-2021
Accepted: 13-10- 2021
Available Online: 01-12-2021

Journal of Research and Rural Planning
Volume 11, No. 1, Winter 2022, Serial No. 36, Pp. 21-40
eISSN: 2783-2007 **ISSN: 2783-2791**
http://jrrp.um.ac.ir

Original Article

Classification of Challenges of Home Businesses in Rural Areas of Sari County using an Integrated Technique of DEMATEL-ISM

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Abstract

Purpose- In many development programs in the third world, the expansion of small home businesses in rural areas has been mentioned as an efficient solution to advance the rural development process and improve the living conditions and income of rural residents. Therefore, the aim of this study is to prioritize the challenges of home business in rural areas of Sari County.

Design/methodology/approach- The present study is an applied and descriptive-analytical, for which the method of documentary and survey (questionnaire) were used. The statistical population of the research consists of experts of the General Directorate of Cultural Heritage, Handicrafts and Tourism of Mazandaran Province and the Industry, Mine and Trade organization and the Agricultural Jihad organization in Sari County. Fifteen people were selected as a statistical sample. Six factors of economic and financial, infrastructure, education and innovation, insurance and law, marketing and skills were considered as home business challenges in rural areas of Sari County. In order to analyze the data, the combined DEMATEL method and interpretive structural modeling were used.

Findings- The results showed that education and innovation, insurance and law and skills barriers are at the highest level of the model and economic and financial, marketing and infrastructure barriers are at the lowest level of the model. According to MICMAC analysis, economic and financial and marketing barriers with strong impact and weak dependence were identified as the most important challenges of home business in rural areas of Sari County.

Research limitations/implications - The absence of a comprehensive database for home businesses, especially in rural areas, poor cooperation of experts in completing the questionnaires is the limitation of this study. Creating and organizing a database of home-based businesses are suggested, especially in rural areas that have been less studied and arranging the study platform for other research in this field.

Practical implications- Supporting home-based businesses based on local and indigenous capacities and knowledge is a solution that not only promotes production and creates jobs for the villagers, but also it has positive social consequences.

Originality/Value- The results of this research can be a guiding tool in the executive organizations in charge of issuing home business licenses (Agricultural Jihad Organization, Industry, Mining and Trade Organization and Cultural Heritage, Handicrafts and Tourism Organization) and institutions supporting the vulnerable and poor groups (Imam Khomeini Relief Foundation and the Welfare Organization). It could also help the managers implement the prosperity of home businesses as effectively as possible.

Keywords- Business, Home business, Sari County, DEMATEL-ISM.

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How to cite this article:
Sharifinia, Z. (2022). Classification of challenges of home businesses in rural areas of Sari County using an integrated technique of DEMATEL-ISM. *Journal of Research & Rural Planning*, *11*(1), 21-40.

http://dx.doi.org/10.22067/jrrp.v11i1.2108-1020

Date:
Received: 02-08-2021
Revised: 21-09-2021
Accepted: 14-10- 2021
Available Online: 03-12-2021

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1. Introduction

In recent years, rural businesses have been a transition from agricultural-based business to other enterprises (Sharifzadeh et al., 2014). On the one hand, shifted social values, such as people's desire for more freedom and independent work as well as having more time with the family, and on the other hand, raising the standard of living of households who increasingly demand more income sources are two main reasons to establish a home-based business (Agahi, et al., 2012). Home-based business is a type of business that may not necessarily involve all family members, so only one or more family members are engaged in economic activity (Izadi et al., 2016).

The nature and characteristics of rural communities and rural development experiences in different countries over the past decades confirm the deficit in the villagers' income. Accordingly, the social, cultural and political consequences cannot be addressed merely by transferring technical knowledge and technologies, and tangible capitals to rural areas. Therefore, a more important element that should be considered by policy makers and rural development practitioners is the improvement of small rural businesses, especially home business and providing the necessary bases for their growth and development (Omidi & Chaharsoghi Amin, 2018).

Rural small businesses with an emphasis on home and households have been able to create the conditions for starting ventures and, hence, sustainability in rural communities (Vakilolroaya et al., 2018). Having a very close relationship between high unemployment, widespread poverty and unequal income distribution, establishing productive employment for underprivileged people are the main mechanisms for reducing poverty and inequality in less developed areas. These rural areas have a special capacity and potential for agriculture, tourism and handicrafts (Rahmani Fazli et al., 2019). The law of home businesses has been regulated in 150 countries of the world (Taghibaygi et al., 2014). It is often thought that this type of business is prevalent in poor and less developed countries, while statistics suggest that 67% of small businesses in Australia, about half of small businesses in the UK, and 52% of businesses of the private sector in the United States are home-based businesses (Zinati Fakhrabad & Bakha, 2016). Starting and developing any business, regardless of the geographical location of its formation, is dealing with many challenges. Most rural areas are sparsely populated, or may have limited access to markets, capitals, skilled labor, and infrastructure due to their remoteness from large population centers. In addition to these, the local attitude and culture may not be in consistence with entrepreneurial activities (Sharifzadeh et al., 2014). Although this type of enterprise has a long history in Iran and can be considered as a suitable approach in the process of optimizing labor productivity and increasing employment opportunities for rural women, it comes with impediments (Moradi Nejad & Vahedi, 2019). Most home businesses in Iran are conducted informally and are traditionally managed. They do not have a specific plan for growth and development, which has led to lack of competitive advantage of these businesses for competing in the regional and national markets and hinder their growth (Modarresi et al., 2018).

According to Iranian Population and Housing Census of 2016, there are 411 villages in Sari County with a population of 152184 people and 50288 households. In other words, about 30% of the total population of Sari County live in villages. About 10.9% of this population is unemployed, which is close to the total rate of the province unemployment (11.1% of the rural population of Mazandaran Province in 2016 was unemployed).

Therefore, there is no option but creating employment and reducing unemployment and preventing the migration of villagers in order to maintain the rural population. The development of home businesses as a way to achieve this goal depends on providing a set of factors and challenges and obstacles. Therefore, the prosperity of home business is necessary for the economic and social empowerment of the villagers in the region. For this purpose, the aim of this study is to use the DEMATEL-ISM combination technique to classify the challenges of home business in rural areas of Sari County. Based on the level of challenges, the study suggests practical solutions to reduce and eliminate these barriers in order to provide empowerment, job creation, entrepreneurship, income generation, and rural development.

2. Research Theoretical Literature

Rural economy is a one of the most important components in the countries' economy from a systemic point of view. Considering the organic relationship between the rural system and the territorial system, it can be said that in terms of

geographical realities, development and progress in economic dimensions depend on the growth and development of rural economy (Afrakhteh et al., 2018). Economy provides jobs and income and is vital for health, food, clothing, and housing. It also satisfies the needs of higher levels such as education, health and recreation (Zangisheh et al., 2018). The rural economic sub-system is not able to play its complementary role in the national and territorial system; the effects of rural issues will eventually be spread in urban areas and the national and territorial system (Zarei and Estelaji, 2017). Sustainable development is a general concept related to various aspects of rural life and sustainable rural development is one of the main aims of public policy (Tavakoli Kajani et al., 2019). In the economic component, lack of employment, deprivation, environmental poverty and lack of optimal use of capabilities have created many challenges for sustainable development (Oghabaei et al., 2019). One of the most important approaches to sustainable development is the diversification of economic activities. The importance of diversification for non-agricultural and multi-sectoral activities in rural areas has been highlighted (Alavizadeh & Mirlotfi, 2013). It can increase flexibility and reduce vulnerability to external shocks (droughts and market problems) by reducing homogeneity in the rural economy. The most important approaches to diversify the economic activities of rural areas can be: the expansion of rural industries (conversion and complementary), the development of home business and the development of tourism and related activities (Sojasi Ghidari et al., 2018). Therefore, replying to globalized economy, rural planners have considered the development of small, regional business associations and local entrepreneurs (Arayesh et al., 2019). Today, creation of small and fast-growing economic enterprises in most economic systems of the world is accepted as a necessity (Gorji Mahlabani & Motevali Alamuti, 2018). The importance of small and medium enterprises in economic growth has made them the main elements in recent policies (Ale Ebrahim et al., 2010). Thus, home business is now a significant part of small businesses and consists the main part of initiated enterprises (Mason & Carter, 2011). Theories of rural development started from the perspective of economic growth and followed by the basic needs of villagers and poverty alleviation policies. Then, the concepts of sustainability, integrated rural development and human development of villages were created with an emphasis on endogenous, participatory, and creative approaches (Orooji et al., 2018). In the new model of sustainable rural development, according to the dynamism and the identified requirements, rural development should come from inside of the communities and in this regard, it needs to use available resources and inputs (Azkia & Dibaji Forooshani, 2016). In many development programs in the third world, the expansion of small home businesses in rural areas has been mentioned as an efficient solution to advance the rural development process and improve the living conditions and income of rural residents (Yaghoubi Farani & Jalilian, 2015). Although the village and rural life are associated with agricultural activities, and agriculture plays a major role in rural development activities (Fallah Tabar, 2018), now many policymakers promote none-farming economic activities, which are known as the engine of rural growth (Mohammadi & Rostami, 2019). Diversification of economic activities in villages in addition to strengthening incomes, will facilitate the process of rural development. This will enrich economic sustainability (Taleshi & Shabnama, 2017). In this regard, the approach of diversification of economic activities is one of the approaches considered in the integrated development of rural communities (Motiee Langroodi et al., 2019). One of the main strategies for job creation and applying the approach of diversification of economic activities in rural areas is to foster non-agricultural industries and businesses, especially home-based businesses. These types of businesses are often part of the hidden and informal sector of the economy, yet they have a significant role in the wealth and economic growth of a society and improvement of social capital (Jaliliyan & Saadi, 2016). In the theory of marginal economies, Penrose believes that conditions of prosperity, creating growth opportunities for small businesses is more feasible than the development of large businesses (Rahmanian Koushki, 2017). More than 50% of the income of rural agricultural communities in developing countries is generated from non-farm resources (Gautam & Andersen, 2016). In the Oxford dictionary of Business means buying, selling and trading. The word is rooted in being busy and entertaining, and refers to activities that produce and purchase goods and services in order to sell them for profit (Taghibaygi et al., 2014). Home business is an enterprise that is done by family members in the

home environment that does not disturb the neighbors. The production is conducted within the home environment, whereas its supply, sale and marketing are transferred outside the residential environment (Naderi Mehdei & Vahdat Moadab, 2018). Walker and Webster have categorized different types of home business based on motivation into venturous, comfortable, contented and ambitious home-bases businesses (Najafi & Safa, 2014). Home-based business owners have a variety of motivations for working from home, such as minimizing costs, comfort at workplace, and not needing alternative places (Newbery & Bosworth 2010). Regardless of the type of home business, some features are common about it such as the house is as the main place of business; the ownership or management of the business is done by one or more family members. Moreover, the production volume is in consistence to the conditions and space of the residential unit, and it is not creating environmental, noise and visual pollution. Home business in rural areas also achieves the goals of a resilient economy for employment and sustainable development (Rahmanian Koushki, 2017). The expansion of home-based businesses in four dimensions transforms the society. In the social dimension, it increases employment. They tend to focus on technology rather than capital. In the economic dimension, it causes the distribution of income in the society, and thus it prevents the emergence of many social conflicts. In the political dimension, it promotes the proper distribution of opportunities among the people, the improvement of democracy, and prevents the dominance of a certain group. In the personal dimension, a more suitable space will be provided for implementing the creativity of the homo economicus (Khosravipoor & Dehghanpoor, 2015). Home-based businesses reduce local economic outflows to other areas, so local people work in their own area, promote self-sufficiency and facilitating sustainable economic growth. In this manner, a potential impetus is created to promote businesses that create local or local employment opportunities (Saadi 7 Heidari, 2013). According to the theory of human development in the future the work will not serve others. It is an activity that people has organized for himself, under their management and control and in order to meet the needs (Mirakzadeh et al., 2017). According to Horgan's postulation, home-based business increases employment and reduce household costs, and ultimately is a means to regional economic growth (Yaghoubi Farani et al., 2014). Despite their economic importance, these kinds of businesses are not well recognized (Breen, 2010). The followings are the cases to be said about the importance of home business:

1. Home-based businesses have a strong potential to develop. The average annual growth of home business is 16% and the average growth of small businesses is 11%;
2. Home business provides a great opportunity to create an entrepreneurial strategy with low risk and cost;
3. Most of them have entrepreneurial tendency (Mirlotfi et al., 2014). Entrepreneurs are the engines of economic growth (Faggio and Silva, 2014). Business scholars believe that three factors have led home business to grow in recent years:
   a. The emergence and infusion of new technology, ICT in particular, has led to the prosperity and development of remote and Internet businesses.
   b. Changing the industrial structure and shrinking organizations and outsourcing increases the job insecurity in people and hence more efforts for self-employment. Home business can satisfy the outsourcing need.
   c. Shifted social values, on the one hand, such as people's desire for more freedom and independent work as well as more presence with the family, and raising the standard of living on the other hand, among households who increasingly demand more income sources are two sides of reasons to establish a home-based business (Naderi and Amiri, 2018).

Due to the significance of home business, studies have been conducted about it some of which are mentioned. Findings of study (Amiri et al. 2019) using a systematic approach in the villages of Kermanshah Province showed that home business challenges are affected by various causal factors (marketing, management, legal, support and branding and identity building), interventional factors (resources Financing, government and private sector support, and understanding of decision makers) and contextual factors (socio-cultural and economic infrastructure). Moradi Nejad and Vahedi (2019) in the study of barriers to home business based on the results of factor analysis stated that economic-political factors, lack of business

experience, education, incompetency, lack of cultural and psychological support, respectively, are the most important obstacles for setting up these jobs in rural areas of Ilam. Velaei et al. (2018) in the analysis of barriers to small business development in rural areas of Miandoab County concluded that socio-economic and infrastructure barriers, weak social capital and the preference of bank deposit rather than investing are the important factors in starting a home business. Based on a factor analysis, Rahmanian Koushki et al. (2017) listed six factors of lack of support, economic barriers, cultural and social barriers, lack of knowledge and information, family barriers and lack of laws as barriers to home entrepreneurship in Kamfirooz Rural District. Mirakzadeh et al. (2017) stated in a study that economic, social, educational, structural and managerial barriers were among the barriers to the development of non-agricultural activities with an emphasis on home business in Ghori Ghaleh Rural District. Naderi Mehdei and Teimouri (2017) categorized some strategies for overcoming challenges in developing home-based businesses in five groups, including social strategies (using the latest educational findings to enhance the technical skills of technical staff working at home and reviving work habits), supportive strategies (granting long-term loans in the first two years, promoting the insurance), institutional strategies, marketing strategies (marketing, advertising, home business products export and holding national, regional and local exhibitions) and financing strategies (raising the number and amount of loans). Izadi et al. (2016) in a study investigated obstacles to the development of entrepreneurship in home-based businesses in rural areas of Shiraz. They mentioned the following as the impediment factors: information factors (lack of business plan, lack of cooperation with agricultural and related organizations, poor knowledge of supportive plans in rural areas and the process of obtaining loans and facilities), economic (lack of capital, lack of receive financial support timely), marketing (cheap purchase of products and lack of facilities to supply and sell products without intermediaries), personality (risk avoidance and conservatism and lack of perseverance and limited activity of the business owner) and family (many jobs and responsibilities and lack and exhaustion of physical facilities) Najafi and Safa (2014) in a study "entrepreneurial home businesses and obstacles and challenges in rural areas" concluded that lack of proper business plan, lack of experience and expertise, lack of proper access to market, lack of access to information and resources, lack of financing for home business investment and legal barriers are the most important barriers. Taghibaygi et al. (2014) research about the development of home-based businesses in the villages of the Islamabad-e-gharb County mentioned a list as personality factors (lack of endurance and resistance in the face of problems, lack of creativity and innovation, lack of competence, lack of knowledge about strengths and weaknesses, lack of bargaining power and lack of confidence and perseverance), economic factors (dissatisfaction with the income of the father or spouse, lack of capital, lack of access to credit and loans, disbelief in the impact of home-based jobs on improving income, lack of access to raw materials and the difficulty of providing them and expensive equipment), family-related factors (lack of division of labor and cooperation of family members, lack of encouragement of family members, considerable number of children, disruption of family calmness, household chores and responsibilities, dissatisfaction with life and prevention of family and spouse). They continued with individual factors (lack of planning, lack of effort and perseverance of women, lack of expertise, skills and experience, low social and public relations of women, lack of unemployment and previous failure in family career) and government factor (lack of market, not holding workshops and training classes by the organizations, no access to information centers, lack of insurance, lack of tourism activity and lack of exhibitions). Mirlotfi et al. (2014) in a study about the challenges of home business development in the villages of Dishmuk District of Kohgiluyeh County found lack of expertise, lack of official support, legal barriers, maintenance restrictions, cheap purchase of products, social problems, lack of facilities, lack of suitable space, recession in markets for supply, financial problems, information barriers and lack of business plan, as imoprtant factors. Yaghoubi Farani et al. (2014) in a study in Sardrood District of Razan County based on factor analysis identified six factors of cultural and social, infrastructure and finance, personality, support, family and education as components inhibiting the tendency of rural women to work at home. Reuschke and Mason (2020) in a study examined 994 examples of small and medium-sized home-based businesses in Scotland. The findings show that in rural areas, a

tiny proportion of home-based businesses use digital technologies and online markets. Philip and Williams (2019) stated in a study that the digital economy offers many benefits to small-scale home-based businesses in rural areas. However, the sharp and rapidly changing digital and socio-economic gaps still pose challenges for this segment of the economy. It creates a rural economy, especially in remote villages. A study by Fatoki (2014) stated that internal factors affecting barriers to small and medium-sized businesses in South Africa include lack of management experience, lack of functional skills and training, poor staff development, and poor customer attitudes. Galloway and Kapasi (2014) recognized the lack of funding, lack of networking, and the lack of cooperatives and support organizations as impediments to starting a rural home-based business in Scotland. Ming-Yen Teoh & Chong (2008) identified four components of capital, education and consulting networks, and the use of information and communication technology as barriers to the growth of women entrepreneurs in small and medium-sized enterprises in Malaysia. Most research has only addressed the barriers to a home-based business. However, in this research, it is intended to categorize the challenges of home business, unlike previous researches. Moreover, the study uses the DEMATEL-ISM combination technique as one of the most widely utilized recent methods for this purpose. Unlike most multi-criteria decision models, this technique solves the problem of ignoring the intensity of interactions and internal relations of criteria and sub-criteria quantitatively, and its output is the matrix of interpretive structural modeling (ISM) method for impact analysis, in which one factor builds on another and determines the level of factors of a system. Figure 1 - illustrates the conceptual model of the research.

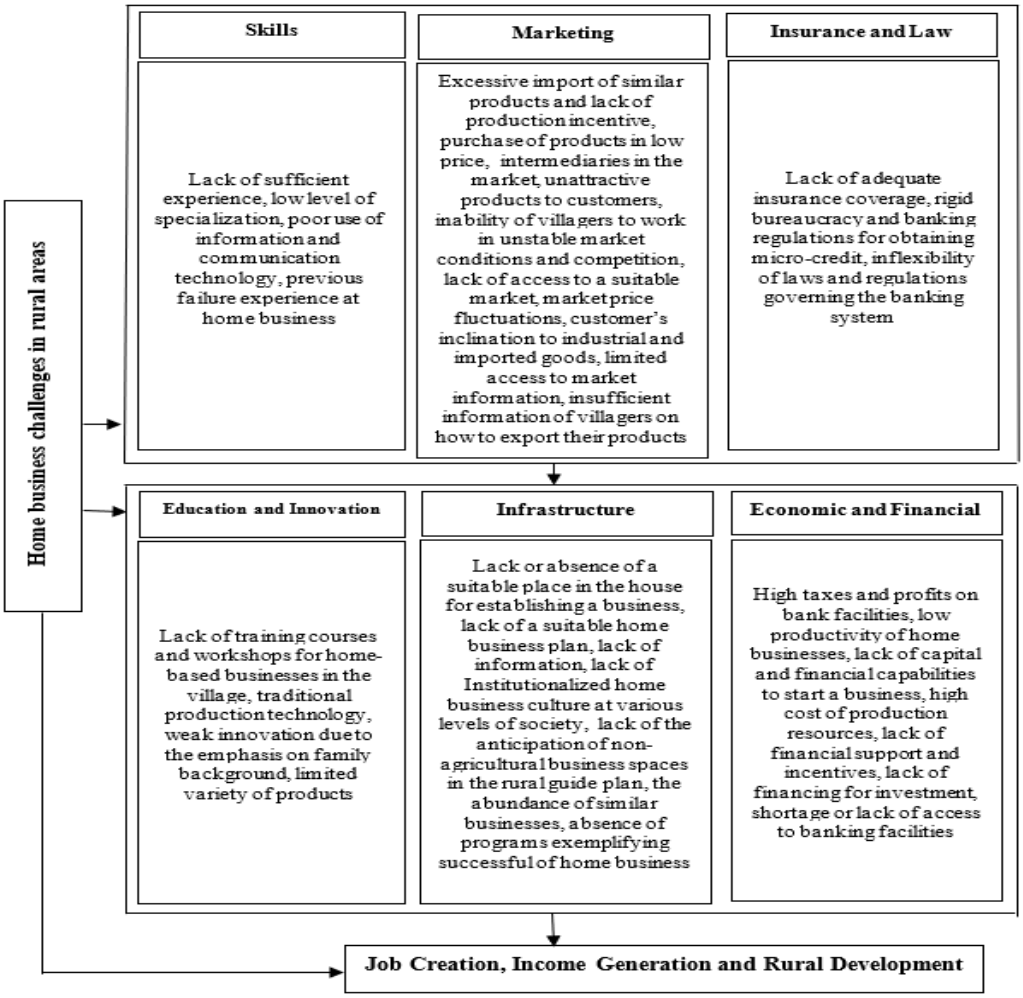


Figure 1. Conceptual model of research

3. Research Methodology

The present study is an applied purpose and in terms of method and nature is descriptive-analytical, for which the method of documentary and survey (questionnaire) were used. The statistical population of the research consists of experts and practitioners of the General Directorate of Cultural Heritage, Handicrafts and Tourism of Mazandaran Province and the Industry, Mine and Trade organization and the Agricultural Jihad organization in Sari city. The statistical sample of most studies based on Dematel method and interpretive structural method is 10-12 selected experts. It should be noted that in this process, the most important factor is the quality of expert opinion (Moradi et al., 2013, p. 95). In this study, 15 experts and actors with the work experience related to home business in rural areas in the above-mentioned organs were selected as a statistical sample using chain-referral sampling technique. So that after identifying and selecting the first sampling unit (expert), that person was used to identify and select the second sampling unit. Based on the theoretical foundations of research, field study and expert opinion, 6 factors of economic and financial, infrastructure, education and innovation, insurance and law, marketing and skills were considered as home business challenges in rural areas of Sari County (Table 1). In order to analyze the data, the combined Dematel method and interpretive structural modeling have been used. Based on Dematel and interpretive structural modeling, a set of various and related factors are comprehensively organized and the conceptual relationships between variables are described in a form of cause and effect. In this method, based on the judgment of experts, the relationship between variables and the way they interact is examined. Also, the specific relationships of variables and the general structure are illustrated in the form of a schematic model. On the other hand, the interpretive structural method only determines the level of influence of factors on each other and helps to identify the internal relations, prioritizing and leveling between factors, while Dematel has the ability to determine the intensity of interactions and relationships between factors in a quantitative fashion and determine the degree of impact and dependence (Pendar & Vesi, 2020). In fact, interpretive-structural modeling is an effective and efficient method for topics in which qualitative variables at different levels of importance have interactions with each other. By applying this method, relationships and dependencies between qualitative variables can be discovered, analyzed and designed. Hence, three crucial steps in the optimal usage of the method are: Identifying qualitative variables, determining the conceptual relationships between the considered qualitative variables and drawing the network of interactions of the studied qualitative variables (Seyfi Farzad et al., 2019)

Table 1. Dimensions and indicators used in the research

Dimensions	Indicator
Economic and Financial (C1)	High taxes and profits on bank facilities, low productivity of home businesses, lack of capital and financial capabilities to start a business, high cost of production resources, lack of financial support and incentives, lack of financing for investment, shortage or lack of access to banking facilities
Infrastructure (C2)	Lack or absence of a suitable place in the house for establishing a business, lack of a suitable home business plan, lack of information, lack of Institutionalized home business culture at various levels of society, lack of the anticipation of non-agricultural business spaces in the rural guide plan, the abundance of similar businesses, absence of programs exemplifying successful of home business
Education and Innovation (C3)	Lack of training courses and workshops for home-based businesses in the village, traditional production technology, weak innovation due to the emphasis on family background, limited variety of products
Insurance and Law (C4)	Lack of adequate insurance coverage, rigid bureaucracy and banking regulations for obtaining micro-credit, inflexibility of laws and regulations governing the banking system

Dimensions	Indicator
Marketing (C5)	excessive import of similar products and lack of production incentive, purchase of products in low price, intermediaries in the market, unattractive products to customers, inability of villagers to work in unstable market conditions and competition, lack of access to a suitable market, market price fluctuations, customer's inclination to industrial and imported goods, limited access to market information, insufficient information of villagers on how to export their products
Skills (C6)	Lack of sufficient experience, low level of specialization, poor use of information and communication technology, previous failure experience at home business
Source: Amiri et al. (2019), Taghibaygi et al. (2014), Velaei et al. (2018), Saadi & Heidari (2013), Moradi Nejad &Vahedi (2019), Mirakzadeh et al. (2017), Mirlotfi et al. (2014), Najafi & Safa (2014), Sharifzadeh et al. (2014), Galloway and Kapasi (2014), Ming Yen Toh & Chong (2008) Yaghoubi Farani et al. (2014), Taghibaygi et al. (2014), Fatoki (2014), Velaei et al. (2018),	

4. Research Findings

Questionnaires distributed among 80% of male experts and 20% female experts, 26.7% of them were between 26-35 years old, 33.3% were between 45-36 years old and 40% were over 45 years old. About 26.7% of experts have a bachelor's degree, 60%, and 13.3% of them have a master's degree and a Ph.D degree, respectively. About 20% have work experience between 1-10 years, 26.7% between 11-20 years and 53.3% have above 20-year experience.

4. 1. Implementing the Dematel technique

First stage: Direct connection matrix formation (M)- In this study, the opinion of 15 experts were used to compare the pairs of criteria, and table 2 is the result of the arithmetic mean of the opinions of experts. In this step, the impact of two criteria on each other was determined based on a scoring criterion of 0 to 4. Verbal expressions and corresponding numbers of Dematel method convey the following arrangements:

0) Factor A has no effect on factor B; 1) Factor A has very little effect on Factor B; 2) factor A has little effect on factor B; 3) factor A has much effect on factor B; 4) Factor A has a great effect on factor B (Moradi et al., 2013). According to the relationships obtained from pairwise comparisons as well as the arithmetic mean, a diagram of the direct relationships between the criteria and the intensity of their relationships is drawn based on a weight score of 0 to 4 (Figure 2).

Table 2. Direct relationship matrix

C6	C5	C4	C3	C2	C1	
3.47	3.53	3.27	3.73	3.6	0	C1
3.53	3.47	1.47	3.33	0	1.67	C2
3.4	1.67	1.4	0	1.33	1.27	C3
3.8	1.6	0	3.33	1.53	1.47	C4
3.4	0	3.73	3.67	3.6	1.6	C5
0	1.53	1.73	1.4	1.27	1.4	C6

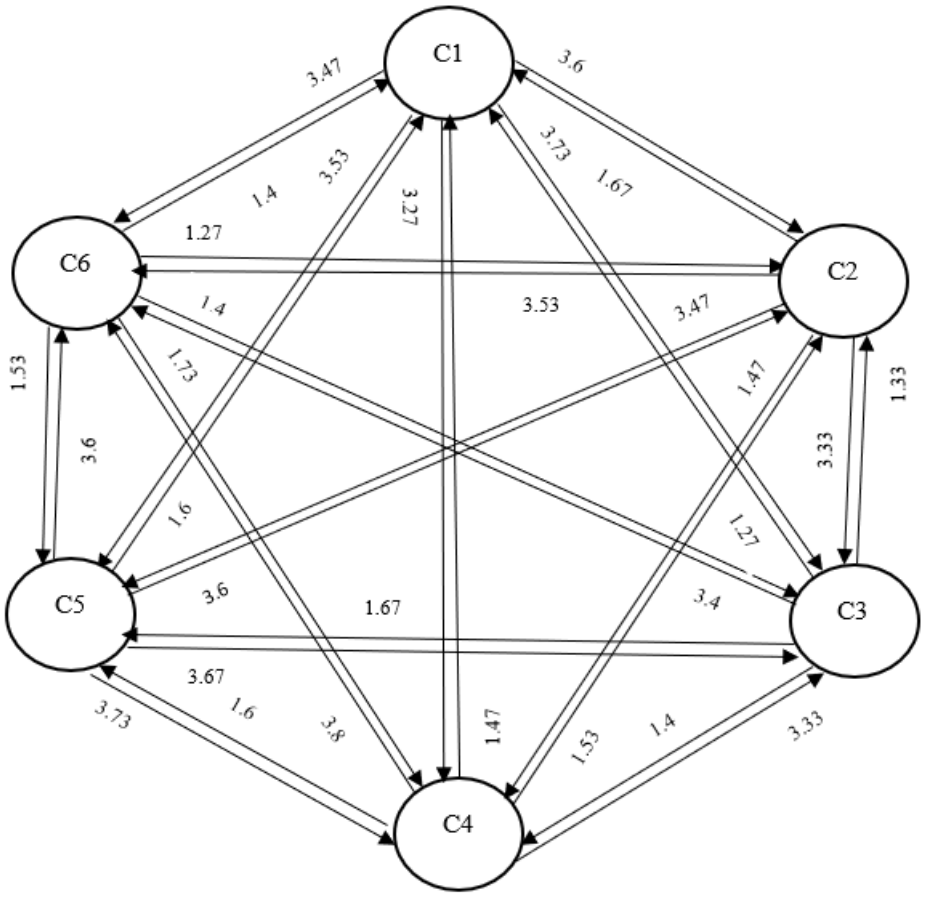


Figure 2. Diagram of direct relationships between criteria and the intensity of their relationship

Second stage: Normalization of direct relationship matrix- Equation (1) was used to normalize the direct relationship matrix (Table 3). To calculate K, first the sum of all the rows and columns of the direct relationship matrix was calculated, and the largest number was displayed with K (K = 17.6), and all the elements of the direct correlation matrix were divided by K.

$$k = \max\left\{\sum_{j=1}^{n} x_{ij}\,, \sum_{i=1}^{n} x_{ij}\right\}; N = \frac{1}{k} * X \qquad \text{Equation (1)}$$

Table 3. Normalized direct relationship matrix

C6	C5	C4	C3	C2	C1	
0.197159	0.200568	0.185795	0.211932	0.204545	0	C1
0.200568	0.197159	0.083523	0.189205	0	0.094886	C2
0.193182	0.094886	0.079545	0	0. 075568	0. 072159	C3
0. 215909	0. 090909	0	0. 189205	0. 086932	0. 083523	C4
0. 204545	0	0. 211932	0. 208523	0. 204545	0. 090909	C5
0	0. 086932	0. 098295	0. 079545	0. 072159	0. 079545	C6

Third stage: Calculate the complete relationship matrix- The general relation matrix (T) represents the relative intensity of direct and indirect relations between the criteria, which was calculated according to equation (2) (Table 4). Equation (2) states that the I-N matrix must first be formed (i.e., the unit matrix minus the normal matrix) and then inverted (the MINVERSE function was used to investigate in Excel).

Finally, the normal matrix must be multiplied by the inverse matrix (the MMUIT function was used to multiply the two matrices in Excel).

$$T = N * (1 - N)^{-1}$$ Equation (2)

Table 4. full relationship matrix

C6	C5	C4	C3	C2	C1	
0. 659199	0. 501826	0. 48826	0. 602494	0. 489526	0. 228762	C1
0. 550236	0. 423143	0. 335586	0. 487158	0. 246174	0. 263663	C2
0. 423748	0. 259411	0. 248332	0. 219349	0. 235908	0. 188403	C3
0. 503145	0. 295629	0. 211927	0. 432024	0. 280997	0. 225959	C4
0. 604671	0. 293857	0. 468537	0. 552509	0. 44955	0. 28738	C5
0. 22787	0. 232623	0. 242666	0. 270569	0. 214329	0. 178948	C6

Fourth stage: Calculating the degree of impact and dependence of factors relative to each other and drawing a cause-and-effect diagram- At this stage, we calculate the sum of the elements of the row and column of the complete relationship matrix (T) and analyze it as follows:

The sum of the elements of each row (D) for each factor indicates the degree of impact of that factor on other factors of the system (the amount of effect of variables), the higher the score of this variable, the more effectual that factor is.

The sum of the elements of the column (R) for each factor indicates the degree of dependence of that factor on other factors of the system (the degree of dependency of variables)

Therefore, the horizontal vector (D + R) is the amount of impact and dependence of the desired factor in the system. In other words, the higher the score for D + R in a factor, the more it interacts with other system factors.

The vertical vector (D-R) shows the power of impact for each factor. Therefore, if the D-R is positive, the variable is a cause variable, and if it is negative, it is an effect.

Finally, a Cartesian coordinate system is drawn. In this plane, the horizontal axis is D + R and the vertical axis is D-R. The position of each factor is determined by a point with coordination (D + R, D-R) in the plane (Ebrahimi and Khorshidi, 2017). Eventually, a graphic diagram will be obtained (Figure 3).

Accordingly, the economic and financial index with the highest impact (3.970068) has the most impact on other factors and the skill index with the highest impact (3.968869) has the most impact on other factors, and economic indicators And financial, infrastructure and marketing with positive impact power are classified as causal and stimulus indicators and educational and innovation, insurance and legal indicators and skills with negative impact power are classified as dependent (disabled) indicators. Also, economic, financial and marketing indicators with higher impact and dependence due to more interaction with other factors, and these challenges for home business in the study area are of more pivotal.

Table 5. The amount of impact and dependence of factors towards each other

D-R	D+R	R	D	
1. 596952	6. 343184	2. 373116	3. 970068	C1
0. 389476	6. 222444	2. 916484	3. 30596	C2
- 0. 98895	6. 139254	3. 564103	2. 57515	C3
- 0. 04563	5. 944989	2. 995308	2. 949681	C4
3. 423882	6. 662995	3. 006489	3. 656505	C5
-1. 60186	6. 335873	3. 968869	2. 367004	C6

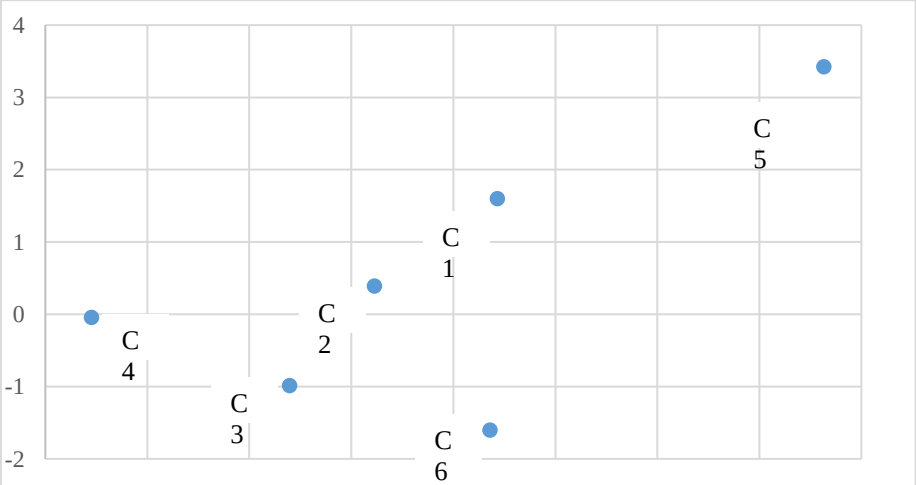


Figure 3. Cartesian coordinate system of D + R and D-R values of each criterion

Fifth stage: Calculate the threshold value and determine significant relationships- In this step, first the matrix T is added to the unit matrix, and the arithmetic mean of the resulting matrix is taken to obtain the threshold value, which is 0.522899. For significant relationships between the criteria, each of the resulting matrix components, or the ones less than 0.522899, was given a value of zero, and for those more than the threshold, the value will be 1 (Table 6).

Table 6. Matrix of significant relationships between criteria

C6	C5	C4	C3	C2	C1	
1	0	0	1	0	1	C1
1	0	0	0	1	0	C2
0	0	0	1	0	0	C3
0	0	1	0	0	0	C4
1	1	0	1	0	0	C5
1	0	0	0	0	0	C6

4. 2. Implementing the ISM technique

Based on the output of Dematel technique, which is a matrix of significant relationships between criteria (Table 6), the criteria were graded using the ISM model.

First stage: Determining the level of criteria- Due to the use of the output of the Dematel technique, there is no need to form a Structural Self-Interaction Matrix (SSIM), form the initial reachability matrix, and adapt the reachability matrix that is done in the first stage of the ISM technique. Therefore, the level of criteria was determined.

Determining level 1 criteria- Based on the matrix of significant relationships between the criteria, a set of input criteria (prerequisite) and output (reached) were calculated for each criterion (1 in each output row and 1 in each input column) and then common factors were identified. Therefore, when the criterion has the highest level, the output set (reachability) is equal to the common set (Table 7). Therefore, according to Table 7, education and innovation, insurance and law and skills indicators are at the highest level of the model and have less impact on the system than other indicators.

Table 7. Determining level 1 criteria

Level	Criterion	Output	Input	Similarity
---	C1	C1, C3, C6	C1	C1
---	C2	C2, C6	C2	C2
1	C3	C3	C1, C3, C5	C3
1	C4	C4	C4	C4
---	C5	C3, C5, C6	C5	C5
1	C6	C6	C1, C2, C5, C6	C6

Determining level 2 criteria- To determine the level 2 criteria, the rows and columns of criteria selected in level one was removed from the matrix of significant relationships and the last process was repeated on the other criteria (Table 8).

Table 8. Determining level 2 criteria

Criterion	Output	Input	Similarity	Level
2	C1	C1	C1	C1
2	C2	C2	C2	C2
2	C5	C5	C5	C5

Second stage: Mapping network interactions- As it turns out, the final model obtained consists of two levels. Barriers to education and innovation, insurance and law, and skills that are at a high level (level one) are less effectual and more dependent by level one factors. Economic and financial, marketing and infrastructure barriers are at a low level (level two) and act as the milestone of the model, these indicators are interrelated and have the greatest impact on level one factors, and to reach to sustainable home business, one should start with these factors (Figure 4).

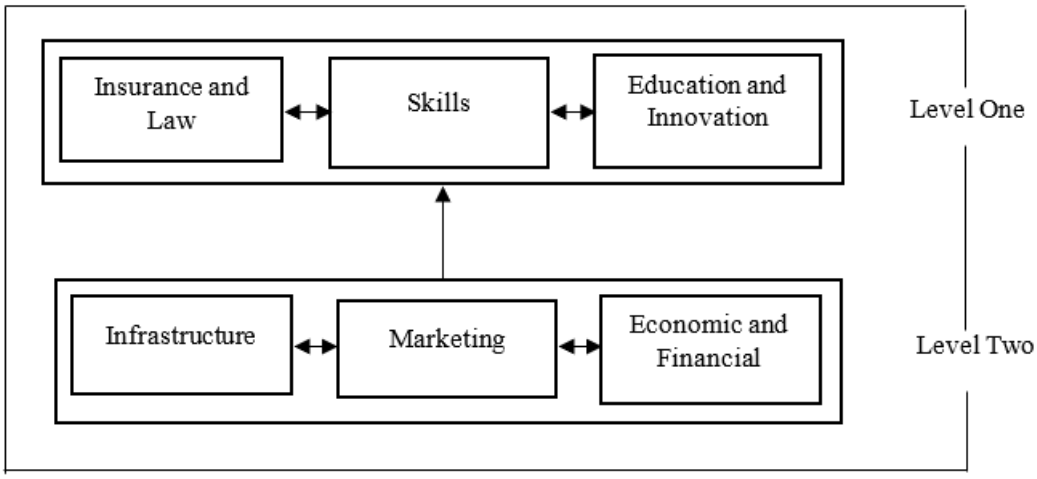


Figure 4. interpretive structural model of home business challenges

Third stage: MICMAC analysis- The purpose of this analysis is to identify and analyze the driving and dependence power of variables. According to Table 6, which is the basis of MICMAC analysis, the degree of impact and dependence of each of the factors in relation to each other has been determined (Table 9). In other words, each factor in Table 6 has two numbers that determine the degree of dependence in the table column and the degree of impact in the row of the table. The intersection of the row and column, the position of the factor in MICMAC analysis (Figure 5). In this analysis, factors are divided into four categories according to the power of driving (impact) and dependence: 1- Autonomous factors: They have poor driving and dependence, these factors are relatively unconnected to the system and have little or no communication with the system; 2- Dependent factors: They have low driving but are high dependence; 3- connecting factors: They have high driving and dependence. These factors are unstable, because any change in them can affect the system, and the system feedback can change these factors again; 4- Independent factors: they have strong driving but weak dependence (Ravi et al., 2005). In the classification, educational, innovation and skill barriers with low impact power and high dependence power (high impact of other factors) are located in the area of dependent indicators (zone 2). Thus, in the logic of cause-and-effect relations, they are considered as the effect of other factors. Infrastructure, insurance and law factors are in the autonomous zone with weak impact and dependence. Economic, financial, and marketing barriers are located in zone 4 (Independent Indicators zone) due to their high impact and low dependency. These factors are not constant, because any change in them affects other variables,

and the feedback of these effects on themselves. Therefore, to address the challenges of home business in the rural areas in this study, we must first pay attention to these factors.

Table 9. Degree of impact and dependence of the factors

C6	C5	C4	C3	C2	C1	
1	3	1	1	2	3	Impact power
4	1	1	3	1	1	Dependence power

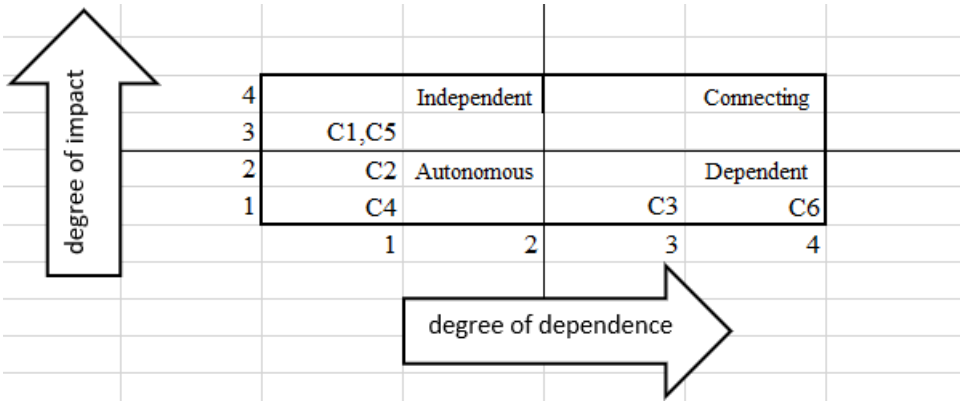


Figure 5. impact and dependence power diagram

5. Discussion and conclusion

Creating, consolidating and growing home-based businesses in rural areas as a complex and systemic concept require attention to solving different and diverse challenges affecting this concept and attention to the impact and relationship between these factors. This study defines the concept of home business and identifying its challenges using the combined DEMATEL-ISM method, has also identified the relationship between barriers and their levels. 6 factors (educational and innovation, insurance and law, skill, economic and finance, marketing and infrastructure) and 35 indicators were identified from theoretical studies. In order to classify the level of the challenges of home-based business, the structural modeling method was used. Finally, a two-folded level was obtained, in which educational and innovation barriers, insurance and law, and skills are at the highest level of the model, which is affected by level two indicators. This is in consistence with the findings of studies of Amiri et al. (2019), Taghibaygi et al. (2014), Velaei et al. (2018), Saadi and Heidari (2013), Moradi Nejad and Vahedi (2019), Mirakzadeh et al. (2017), Mirlotfi et al. (2014), Najafi and Safa (2014), Sharifzadeh et al. (2014), Ming Yin Toh and Chong (2008).

At the lowest level of the model there are economic and financial, marketing and infrastructure barriers, which according to MICMAC analysis economic and financial and marketing barriers with strong impact but weak dependence act as the milestone of the system structure. They are known as the most important challenge Home-based businesses in rural areas of Sari County, which should be emphasized in the first place to start a fundamental change. This is aligned with the results of research by Amiri et al. (2019), Yaghoubi Farani et al. (2014), Taghibaygi et al. (2014), Velaei et al. (2018), Saadi and Heidari (2013), Moradi Nejad and Vahedi (2019), Mirakzadeh et al. (2017), Mirlotfi et al. (2014), Najafi and Safa (2014), Sharifzadeh et al. (2014), Galloway and Kapasi (2014), Ming Yen Toh and Chong (2008). Due to the high taxes and high interest of banking facilities and the lack of capital to start small businesses in rural areas, one of the few options for funding is the rural women micro credit fund. Considering that 30% of the population of Sari County live in rural areas, to maintain the rural population and create sustainable employment, it can be a good idea to increase the number of funds. In addition, combining it with government funding and identifying capable young women can be a practical strategy for the prosperity of home-based businesses in rural areas.

In calculating the impact and dependence of factors towards each other, it was found that economic and financial factor with the highest impact (3.30068) has the greatest impact on other factors, so the development of home business requires financial support from a set of organizations and institutions. The cooperation and interaction of these organizations depend on time and the establishment of a master plan based on local conditions and requirements of home businesses in rural areas of Sari County with long and medium-term goals and transparent time-lines.

Also, the skill factor was classified as dependent (effect) indicator. According to this matter, it can be said that the villages of Sari County have a good opportunity to take advantage of this local potential for the growth of businesses in the field of tourism, production and sale of handicrafts, production and supply of local food, etc., due to the special geographical location and location in the coastal topography (such as Farahabad village) and foothill and forestry (such as Mal khast, Sanam and Telobagh villages) as well as the presence of tourists from different parts of the country. This doesn't require too much expenditure for training and skills, so according to the results of the research showed that the skill indicator is the most dependence on other factors. Strengthening the economic potential of the labor interested in home business by low-interest loans, introduction and identification of villages with potential through social media and the Internet can affect this factor and provide a good platform to support home business based on local capacities and knowledge. As a result, this will lead to prosperity of production and job creation for the villagers, positive consequences of the community the prosperity of rural businesses. The results of this research can be a guiding tool in the executive organizations in charge of issuing home business licenses (Agricultural Jihad Organization, Industry, Mining and Trade Organization and Cultural Heritage, Handicrafts and Tourism Organization) and institutions supporting the vulnerable and poor groups (Imam Khomeini Relief Foundation & the welfare organization). It could help the managers in order to implement the prosperity of home businesses as effectively as possible. Regarding the limitations of the research, the study faced some of them including the absence of a comprehensive database for home businesses, especially in rural areas, poor cooperation of experts in completing the questionnaires due to their frequent attendance at meetings and time consuming explanation on how to complete the questionnaires. Therefore, some suggestions for future studies are provided such as collecting data in order to create and organize a database of home-based businesses, especially in rural areas that have been less studied and arranging the study platform for other research in this field.

In this study, based on the complete relationship matrix in Dematel method and network of interactions in ISM technique, economic and financial, infrastructure and marketing factors are identified as causal, driving factors and the most important challenges of home business in rural areas of Sari County. The following suggestions are provided to improve and address these challenges:

- Increasing the amount of bank loans with long-term payments for at least one to two years and with easy collateral and guarantee, encouraging the private sector to set up and support home-based businesses, using the economic capacities and capabilities of each rural area to create a set of cash support for entrepreneurs, as well as starting businesses in consistence with raw materials existed in each village.
- Holding workshops and training classes on startup home businesses and institutionalizing the culture among the villagers with the help of Rural Municipality and the Islamic Council of Village, launching various businesses according to the different capabilities and capacities of rural areas to avoid same startups businesses and guarantee profitability, holding events to show successful business examples at the local, regional and national levels for new entrepreneurs in order to overcome limitations are suggest solutions to address infrastructure challenges.
- For marketing challenges the followings are suggested: encourage villagers to hold local exhibitions of their home business products in rural areas and participate in regional and national festivals and exhibitions to introduce their products, use digital marketing, create market and variety in products by using the power of creativity and innovation in order to compete with similar products in the market, prevent the import of similar products to the country, encourage consumers to buy locally.

Acknowledgments

This article did not receive any special financial support from any organizations and is the result of the author's scientific research.

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Journal of Research and Rural Planning
Volume 11, No. 1, Winter 2022, Serial No. 36, Pp. 21-40
eISSN: 2783-2007 **ISSN: 2783-2791**
http://jrrp.um.ac.ir

Original Article

سطح بندی چالش های کسب و کار خانگی در نواحی روستایی شهرستان ساری با کاربرد تکنیک ترکیبی DEMATEL-ISM

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چکیده مبسوط

۱. مقدمه

در سال های اخیر در حوزه کسب و کارهای روستایی نوعی گذر از کسب و کارهای مبتنی بر کشاورزی به کسب و کارهای عمومی رخ داده است. با توجه به ماهیت و مشخصه های جوامع روستایی، تجربیات توسعه روستایی در کشورهای مختلف جهان نشان می دهد که مشکلات کمبود درآمد روستاییان و پیامدهای اجتماعی، فرهنگی و سیاسی ناشی از آن را نمی توان تنها با انتقال دانش فنی و فناوری ها از یک سو و سرمایه های مادی به مناطق روستایی از سوی دیگر، حل شده پنداشت، بلکه عنصر مهم تری که بایستی مورد توجه سیاست گذاران و کارشناسان توسعه روستایی قرار گیرد، تاکید بر توسعه کسب و کارهای کوچک روستایی به ویژه کسب و کارهای خانگی و فراهم ساختن بسترهای ضرور ی برای رشد و توسعه آن هاست. بر اساس سرشماری عمومی نفوس و مسکن ۱۳۹۵، در شهرستان ساری تعداد ۴۱۱ روستا با جمعیتی معادل ۱۵۲۱۸۴ نفر و در قالب ۵۰۲۸۸ خانوار وجود دارد. به عبارت دیگر حدود ۳۰ درصد کل جمعیت شهرستان ساری در روستاها زندگی می کنند، که حدود ۱۰/۹ درصد از این جمعیت بیکار بوده اند که فاصله اندکی با نرخ کل استان دارد(۱۱/۱ درصد جمعیت روستایی استان مازندران در سال ۱۳۹۵ بیکار بوده اند). لذا به منظور حفظ جمعیت روستایی، ایجاد اشتغال و کاهش بیکاری و جلوگیری از مهاجرت روستاییان در روستاهای شهرستان ساری، توسعه کسب و کارهای خانگی در گرو فراهم سازی مجموعه ای از عوامل و زمینه ها و رفع مجموعه ای از چالش ها و بازدارنده هاست. بنابراین رونق کسب و کارهای خانگی برای توانمندسازی اقتصادی و اجتماعی روستاییان منطقه لازم و ضروری است. برای این منظور هدف تحقیق حاضر آن است تا با کاربرد تکنیک ترکیبی DEMATEL-ISM به سطح بندی چالش های کسب و کار خانگی در نواحی روستایی شهرستان ساری بپردازد و با توجه به تعیین سطح چالش ها راهکارهای عملی را جهت کاهش و از بین بردن این موانع در جهت توانمندسازی، ایجاد اشتغال، کارآفرینی، درآمدزایی و توسعه روستایی ارائه دهد.

۲. مبانی نظری تحقیق

از منظر سیستمی یکی از اجزاء مهم در ساختار اقتصاد کشور، زیرسیستم روستایی یا ساختار اقتصاد روستایی است. با توجه به ارتباط ارگانیکی نظام روستایی با نظام سرزمینی می توان گفت از حیث واقعیت جغرافیایی، توسعه و پیشرفت در ابعاد اقتصادی منوط به رشد و پیشرفت اقتصاد روستایی است. از مهم ترین رویکردهای ایجاد تنوع در فعالیت های اقتصاد مناطق روستایی می توان به مواردی از قبیل: توسعه صنایع روستایی(تبدیلی و تکمیلی)، توسعه کسب و کارهای خانگی و توسعه گردشگری و

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فعالیت های مرتبط با آن اشاره نمود. در بسیاری از برنامه های توسعه ای در کشورهای جهان سوم نیز توسعه کسب و کارهای خرد خانگی در محیط های روستایی به عنوان نوعی راهکار موثر در پیشبرد فرایند توسعه روستایی و بهبود وضعیت معیشت و درامد ساکنان مناطق روستایی عنوان شده است.

۳. روش تحقیق

پژوهش حاضر بر اساس هدف کاربردی و به لحاظ روش و ماهیت توصیفی- تحلیلی و روش گردآوری اطلاعات کتابخانه ای و میدانی(پرسشنامه) است. جامعه آماری تحقیق را کارشناسان و متخصصان اداره کل میراث فرهنگی، صنایع دستی و گردشگری استان مازندران و سازمان صنعت، اداره معدن و تجارت و جهاد کشاورزی شهرستان ساری تشکیل می دهد. نمونه آماری اغلب مطالعات مبتنی بر روش دیمتل و ساختاری- تفسیری، ۱۰-۱۲ خبره انتخابی است باید توجه داشت در این فرایند عامل مهم تر کیفیت نظر خبرگان است. در این پژوهش ۱۵ نفر از کارشناسان و فعالان دارای سابقه کار، تجربه و مرتبط با کسب و کار خانگی در نواحی روستایی در ارگان های فوق للذکر با استفاده از روش نمونه گیری زنجیره ای به عنوان نمونه آماری انتخاب شدند. بر اساس مبانی نظری تحقیق، پژو هش های میدانی و نظر کارشناسان ۶ عامل اقتصادی و مالی، زیرساختی، آموزشی و نوآوری، بیمه ای و قانونی، بازاریابی و مهارتی به عنوان چالش های کسب و کار خانگی در نواحی روستایی شهرستان ساری در نظر گرفته شد. به منظور تجزیه و تحلیل داده ها از تکنیک ترکیبی دیمتل و مدلسازی ساختاری- تفسیری استفاده شده است.

۴. یافته‌های تحقیق

نتایج حاصل از تکنیک DEMATEL-ISM تحقیق نشان داد که که موانع آموزشی و نوآوری، بیمه ای و قانونی و مهارتی در بالاترین سطح مدل و موانع اقتصادی و مالی، بازاریابی و زیرساختی در پایین ترین سطح مدل قرار گرفته اند، که بر اساس تحلیل MICMAC موانع اقتصادی و مالی و بازاریابی با قدرت نفوذ قوی و وابستگی ضعیف به عنوان مهم ترین چالش های کسب و کار خانگی در نواحی روستایی شهرستان ساری شناسایی شدند.

۵. بحث و نتیجه گیری

ایجاد، تثبیت و رشد کسب و کارهای خانگی در فضاهای روستایی به عنوان یک مفهوم پیچیده و سیستمی نیازمند توجه به حل چالش های مختلف و متنوع تاثیرگذار در این مفهوم و توجه به اثرگذاری و ارتباط بین این عوامل است. با توجه به بالابودن مالیات و سود تسهیلات بانکی و نداشتن سرمایه اولیه برای راه اندازی کسب و کارهای خرد در نواحی روستایی یکی از صندوق های مالی حمایتی صندوق اعتبارات خرد زنان روستایی می باشد، که دفتر مشارکت و امور زنان روستایی وزارت جهاد کشاورزی از سال ۱۳۷۹ صندوق اعتبارات خرد زنان روستایی را در سطح کشور با هدف حضور زنان در ساختار اقتصادی خانواده اجرا نمود و در استان مازندران در سال ۱۳۷۹ اولین صندوق اعتبارات خرد زنان روستایی در روستای فیروزجاه بابل تشکیل شد. در حال حاضر در استان مازندران تعداد ۱۱۶ صندوق وجود دارد که ۶ صندوق آن با ۱۸۰ عضو مربوط به شهرستان ساری می باشد(نظیر روستای پایین دزا با ۲۵ عضو). لذا با توجه به این که ۳۰ درصد جمعیت ساری در نواحی روستایی زندگی می کنند به منظور حفظ جمعیت روستایی و ایجاد اشتغال پایدار افزایش تعداد صندوق ها، تلفیق آن با اعتبارات دولتی و شناسایی زنان توانمند و جوان می تولند راهبردی عملی در رونق کسب و کارهای خانگی در نواحی روستایی باشد.

کلیدواژه‌ها: کسب و کار، مشاغل خانگی، ساری، DEMATEL-ISM.

تشکر و قدردانی

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

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How to cite this article:
Sharifinia, Z. (2022). Classification of challenges of home businesses in rural areas of Sari County using an integrated technique of DEMATEL-ISM. *Journal of Research & Rural Planning, 11*(1), 21-40.

http://dx.doi.org/10.22067/jrrp.v11i1.2108-1020

Date:
Received: 02-08-2021
Revised: 21-09-2021
Accepted: 14-10- 2021
Available Online: 03-12-2021

Journal of Research and Rural Planning
Volume 11, No. 1, Winter 2022, Serial No. 36, Pp. 41-58
eISSN: 2783-2007 **ISSN: 2783-2791**
http://jrrp.um.ac.ir

Original Article

Proposing a Structural Equation Model for Feasibility of Rural Tourism Development (Case Study: Gaikan Village of Aligudarz County)

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Abstract

Purpose- Rural tourism can be considered a country-related experience that includes a wide range of attractions and activities. They can be related to agriculture and might increase opportunities to provide services to local communities. In the same time, they can change the nature of geographical landscapes. Thus, this study aimed to investigate the feasibility of rural tourism development using the structural equation model in Gaikan Village of Aligudarz County.

Design/methodology/approach- This is applied study, in terms of purpose, and in terms of method, it is descriptive-analytical. To fulfill the purpose of the study, field study and survey were used. Using Cronbach's alpha test, the reliability for two feasibility components (attractions and capabilities of rural tourism, and obstacles and problems of rural tourism development), were 0.79 and 0.80, respectively, which indicates the good fit of the research tool. The statistical population consisted of three categories of experts, tourists and villagers (270 people in total: 13 experts, 129 tourists and 128 villagers) who were selected by simple random sampling. In order to analyze the data, exploratory factor analysis and structural equation modeling in SPSS20 and AMOS software were used.

Findings- The findings showed that the most important attractions and tourism capabilities of Gaikan Village are in four main categories: cultural and religious attractions, use of organic product, rural welfare facilities and services, and natural attractions. Also, the most important restrictions and obstacles of tourism development in this village are: lack of proper investment, avoidance of using agricultural products and related industries, ignorance of local people about the benefits of tourism, lack of amenities, and creating environmental pollution. The last one has a significant relation with tourist development .

Research limitations/implications- Lack of proper access to transportation infrastructure, roads, and accommodations in the area of Aligudarz County has created limitations for the development of tourism in the study area. Moreover, access to tourists and key informants of rural issues (statistical population of the study) was one of the problems in the research.

Practical implications- Due to the lack of transportation, accommodation, and public infrastructure in Gaikan Village, establishing the accommodations such as hotels as well as camps are suggested in the region .

Originality/value- The feasibility of tourism development can lead to understanding the tourism process in accordance with the local systems and finally, designing a suitable local model.

Keywords- Feasibility, Rural tourism, Structural Equation Model, Gaikan village, Aligudarz County.

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How to cite this article:
Zalaqi, S., Amiri, A. & Moradi, H. (2022). Proposing a structural equation model for feasibility of rural tourism development (Case study: Gaikan village of Aligudarz County). *Journal of Research & Rural Planning*, *11*(1), 41-58.
http://dx.doi.org/10.22067/jrrp.v11i1.2106-1015

Date:
Received: 03-08-2021
Revised: 02-10-2021
Accepted: 01-11- 2021
Available Online: 01-12-2021

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1. Introduction

For the developed economies, rural tourism can be considered a country-related experience that includes a wide range of attractions and activities. They may (or may not) be in the field of agriculture and increase opportunities to provide services to local communities. Moreover, they can change the nature of geographical landscapes (Oriade & Rabinson, 2017). These geographical spaces or landscapes are crucial items in rural tourism and must be protected. In other words, the importance of conserving habitats or nature has become an integral part of the rural economy (JamshidZehi Shahbakhsh & Moradi, 2020). Rural tourism brings visitors to tourism destinations who tend to find goods and services that improve their expected lifestyle. Otherwise stated, the development of rural tourism can lead to job opportunities and improve economic development in an area. Rural tourism can also be associated with other matters such as economic, environmental, and social issues, especially the cost of living, cheap housing, and second homes. Despite these potential challenges and shortcomings, tourism development has yet seen as a viable tool for rural areas restoration. Therefore, ensuring the preservation of a sense of community identity is important, so it should be developed in a way that does not jeopardize wellbeing and quality of life in the local community. This can be achieved through planning, controlled growth, and community participation during the development process (Howe et al., 1997).

Developing economies, on the other hand, vary in terms of geographical area and population size. They could have certain features in common. Their population is mainly agricultural, although urban areas usually have a dualistic nature with technical progress ranging from modern to very modern. Economic activity is usually concentrated within and around cities, and one of the problems facing these countries is the rapid rural-urban migration due to the lack of opportunities in the rural sector. This contributes to the growth of poverty, inequality, and the existence of an informal sector in urban areas. On the other hand, developing economies are increasingly dependent on the tourism sector not only to stimulate growth and generate foreign exchange earnings, but also to strengthen their backward rural economies by providing employment opportunities (Oriade & Rabinson, 2017). The World Bank (2015) classifies the economies as generally low-income countries ($ 1,045 or less), low and middle-income countries ($ 1,045 to $ 4,125), and middle and high-income countries ($ 4,125 to $ 12,736). Not all of these types of economies in these groups face the same development challenges. Rural economies are often characterized by weak or even not having basic infrastructure and services. Among these, tourism as one of the most important tools for development in the world, has an endless growth (Ziaee et al., 2014), and it has been mentioned as an effective tool for economic and social reconstruction and development of rural areas (Ghadir Masoom et al., 2013). The product of rural tourism begins with a study of tourism capital. According to Bourdieu, capital is a resource that affects a particular area and allows the individual to make a certain profit through being part of it (Wogget, 1993). The capitals are natural, historical, and cultural such as traditional landscapes, fresh air for relaxation, the ability to engage in sports activities, and customs related to rural culture (Trauer, 2006).

Iran, like other developing countries, is facing the problem of poverty and inequality, which is now a real phenomenon in some parts of rural society (Salehi & Vali Shariat Panahi 2019). Tourism as a multidimensional development tool can contribute to both meeting the needs of tourists, making major changes in the host community (Dwyer et al, 2009). According to the 20-Year Vision Plan for tourism, Iran should have 20 million foreign tourists by 1404 AH (2025 AD) (Karami Dehkordi et al. 2015). According to the forecast of the World Travel Organization in 2020, the income from tourists entering Iran will reach 1.5 billion dollars, which is equivalent to 2.4 percent of Iran's total exports (World Tourism Organization, 2011, as cited in Jamshidzehi Shahbakhsh & Moradi, 2020). Lorestan Province is one of the most important tourism and ecotourism destinations in the country. Based on its geographical advantages, natural capacities (water and soil), it has a high capacity to create suitable spaces for tourism, especially in rural areas. This province has many geotourism capabilities, which is considered as the geotourism capital of the country (Yarahmadi & Sharafi, 2016). Gaikan Village, as one of the tourism target villages of Aligudarz County, has many tourism

attractions and capacities such as rich cultural resources (especially nomadic lifestyle), natural tourism attractions and connecting the two tourist destinations of Lorestan and Isfahan (Darvishi et al., 2014). Therefore, studying rural tourism development, in accordance with the objective facts and based on the framework of economic development of the villages targeted for tourism can be an important step in the growth and development of rural and tourism in Aligudarz County. Therefore, this study aims to assess the feasibility of rural tourism development in Gaikan and seeks answers to this fundamental question that regarding the five elements of tourism products (attractions, access, infrastructure facilities, services and hospitality, and organizational and institutional elements) how Gaikan Village has been effective in establishing the tourism landscape of this region.

2. Research Theoretical Literature

Tourism industry is a wide range of activities aimed at satisfying tourists on the one hand, and benefiting the people and the local community at the destination on the other hand (Ranjbarian & Zahedi, 2000). Today, rural tourism is one of the important parts of economic activities that can provide the development of small business and entrepreneurship (Rostami & Ehsanifar, 2018). The definition of tourism in the study of rural development areas is ambiguous. Tourism is defined by Leiper (1990) as the movement of people from a tourist providing area to a tourist destination, where they stay for a period of time. Rural tourism is also defined as "a multifaceted activity that takes place in an environment outside of urban areas" (Killon, 2001, p. 121). This activity is part of the industry that is carried out by small-scale tourism businesses and is applicable in areas where land is used by agricultural businesses. This activity should be done as a suggestion in a variety of experiences (in which) the emphasis is on the experience of tourists that use the products and activities in rural areas. Farm holidays, agritourism (agricultural tourism), special interest holidays, ecotourism (nature tourism), hiking, cycling, horseback riding, mountaineering and adventure tourism, sports tourism, health, medical and welbeingfare tourism, hunting, fishing, food tourism, religious tourism and almost all other possible forms of tourism include events, festivals and even visiting friends and relatives. In creating a wide range of such activities, considering the nature and supply conditions in rural areas is of particular importance (Jamshidzehi Shahbakhsh & Moradi, 2020). In urban destinations, there are many multinational corporations, small chains and independent businesses that offer tourism experiences. In rural areas, the supply of these activities is offered with a larger number of small and medium capital. This leads to evident need for a balance of supply and demand in rural areas to encourage indigenous (and non-indigenous) people to develop their jobs in most rural economies. This leads to an opportunity to maximize the positive effects of these activities (Oriade & Rabinson, 2017).

Tourism attractions are the main reason for tourists to visit rural destinations and is considered as the key element in locating tourism sites. In other words, the development of tourism is based on the existence and arrangement of tourism attractions. Although attractions are a vital element in the tourism system, tourism is a framework in which the interaction among its components forms the tourism system. According to Leiper (1990), tourism consists of three interrelated sub-sectors that form the entire tourism system. These three sections are the regions of departure, transition, and destination. Accordingly, when the destination area is identified, both departure and the transition areas are related to it, which needs to be recognized, arranged, and planned. Different theories have been presented on the way of identifying and introducing the region (Leiper, 2004).

On the other hand, tourism is also grounded in the basic factor of travel and transportation. Therefore, their changes are subject to various changes such as travel motivation and means of transportation. The considerable effects of tourism in reducing unemployment, increasing income, providing energy resources and the prosperity of the handicraft market are only some parts of the special benefits of this industry, in which more than 10 million people are occupied (Mousavi, 2019). In other words, tourism can be considered as an issue in which millions of interactions take place, and has its own history and a body of knowledge, and the information is accumulated in it. Millions of people are involved in this economic process (Murti, et al, 2015, as cited in Roozbehani et al. 2020).

Other pillars of tourism are tourism facilities and services. In the culture of tourism, the set of

facilities and equipment related to transportation, accommodation, hospitality, entertainment and side services related to tourism are called tourism facilities and services. Residential facilities mainly are: Hotels and guest houses, tourist camps, boarding houses and motels and catering facilities also consist of restaurants, food stalls, cafes and coffee shops, etc. Recreational facilities include parks, swimming pools, sports fields, clubs, etc. In addition to these facilities, there is a series of service activities that indirectly serve tourism. These services mainly are: Gas stations, automobile repair shops, airports, railways, passenger terminals, banks, travel agencies, security centers and many other required side services (Aghajani, 2004). Tourism facilities and services, that is, supplying increasingly in the tourism industry, bring the highest volume of revenue to the host communities. It should be noted that providing infrastructure must be among the first priorities for the desired tourism facilities and services, as infrastructure is a major part of this pillar. The tourism product differs not only from physical goods and products, but also from other services. In other words, this product is experienced in a period of time and during different stages. This makes it difficult and complicated to evaluate. In the second stage, this product is risky for tourists, because in addition to having costs, the wasted time cannot be compensated. In the third stage, a part of this product is according to the personal desires of tourists, including relief from the pressures of life, gaining new experiences, entertainment and fun. Therefore, tourism planning and development requires the identification of these types of motivations and demands. Recognizing the motivations and demands of tourists is one of the tourism market tasks. At the end, the tourism product has a duality in capability. It means that the products are not only used by non-native tourists (Zhang et al., 2009: 1-14).

Table 1 summarizes the most important research conducted in this field. According to the researches, the study of feasibility study of tourism development of Gaikan Village using the model of structural equations and based on the five elements of tourism product is a new topic that has been less addressed. According to the studies, the most important factors affecting the development of rural tourism are the five elements of the tourism product in rural destinations, including attractions, access, infrastructure and facilities, services and hospitality, and organizational and institutional elements that can be listed in Table 1.

Table 1. Summary of the background literature of the extracted variables and components affecting the development of rural tourism

Row	Researcher (year)	Five elements of the tourism product
1	Pouriani et al. (2020)	Attractions, infrastructure and facilities: The findings from the point of view of tourists indicate that the existing capacities in the social, cultural, environmental and physical fields are inadequate. Also, the findings of the ANOVA test also indicates, there are no entrepreneurial capacities in the social, cultural, environmental and physical entities in the county.
2	Salehi & Vali Shariat Panahi (2019)	Attractions, access, and infrastructure and facilities: Natural capital (environment) and cultural capital (handicrafts) are the most important factor in planning and attracting tourists, which are augmented by human capital (ability to work and provide services to tourists), social capital (people's trust in each other and village managers in tourism) and physical (existence of roads communication and road).
3	Einali et al. (2018)	Attractions, access, services and hospitality, and organizational and institutional elements: Tourism development has a positive impact on economic, socio-cultural and physical indicators and a negative impact on the environmental indicators.
4	Bayat & Badri (2017)	Attractions, access, services and hospitality, and organizational and institutional elements: The findings of the study indicate the positive effects of tourism in economic, environmental (physical-spatial), and social dimensions, on the other hand the negative effects of tourism are the environment, social, security and cultural, respectively.
5	Orooji et al. (2016)	Attractions and organizational and institutional elements: Findings showed that the tourism economy of Abyaneh Village was evaluated through this model which showed the relative economic effects of tourism on the village. Also, according to the results obtained from Abyaneh Village, the economic effects of tourism in this village have been evaluated in terms of desirability, normal and relative. Despite that it has also played an important role in migration and reducing its trend from rural to urban areas and has had favorable effects on investment and employment in the service sector, it seems that the mental image of the village is not conducive and people are not very satisfied with tourism. This is an important negative factor in the relative value of the economic effects of tourism in Abyaneh Village.

Row	Researcher (year)	Five elements of the tourism product
6	Karami Dehkordi et al. (2015)	Attractions, access, infrastructure and facilities, services and hospitality, and organizational and institutional elements: Problems are related to infrastructure, marketing, health, souvenirs and handicrafts, government and tourism, human resources, planning and research, ethnic and tribal prejudices, climate change, diminishing cultural attractions.
7	Pazoki & Yourdkhani (2015)	Attractions, access, infrastructure and facilities, services and hospitality, and organizational and institutional elements: Causal conditions: Reduction of norms of interactive practice, pessimism about the presence of tourists, migration; Interfering conditions Prioritizing immediate (not future) benefits that have led to land use change; Strategies: Changing the structure of life, changing the texture of the village, feeling dis-empowered confronting economic problems and consequences: Underdevelopment of the village, delay in the growth of self-confidence and self-reliance.
8	Darvishi et al. (2014)	Access, infrastructure and facilities, services and hospitality, and organizational and institutional elements: According to the results (training, spatial-physical and social organization of villagers, creating a suitable mechanism for public and private sector investment in tourism facilities and services and employment-generating activities, laying the groundwork and promoting tourism culture and creating solidarity among the local community and tourists) as a offensive strategy is suggested to achieve tourism development in Gaikan Village.
9	Wang, et al. (2021)	service and organizational and institutional elements: Although rural tourism can help reduce the rural-urban economic gap by providing additional income opportunities, the literature is limited, especially in developing economies. Therefore, in the first stage of the study, this issue was investigated using the model of fixed effects of panel data at the semi-micro level, focusing on eight regions of Fujian Province, China. The results showed that when the GDP of tourism in rural areas increases, the income gap of villagers decreases.
10	Nugroho et al. (2021)	Attractions Indonesia has allocated 72 trillion IDR rural funds in 2021 for the rural development program, in which rural tourism is the main sector after infrastructure, education and health. A survey of 700 tourists and 70 rural tourism managers found that the words "tourism attraction", "economic activities" and "curiosity" attract tourists, while rural tourism managers focus only on "tourism attraction" as the focus of the strategy management. There was a knowledge gap between tourists and tourism managers because tourists preferred to see "originality" while managers wanted to create "artificial" attractions.
11	Kozic (2012)	Attractions, access, infrastructure and facilities, services, and organizational and institutional elements: Data analysis indicates different levels of stability (economic, social and environmental indicators) in different regions. Finally, planning in different time periods, according to the type of instability in each region was recommended.
12	Iorio & Corsale (2010)	Infrastructure and facilities: The results showed that rural tourism has increased the living standards of rural families and tourism has adapted to other livelihood methods in the villages of this country.
13	Harrison et al. (2007)	Infrastructure and facilities: The operation, with the emphasis on the protection of the resources and natural life of the river and the constructions since 2004 have led to attracting many tourists and increasing the economic potential of the region.

3. Research Methodology

3.1 Geographical Scope of the Research

Aligudarz County is located between 49 degrees and 42 minutes east longitude and 33 degrees and 24 minutes north latitude. Aligudarz is placed in the northern half of the county. This city is connected through the northern route with the cities of Khomein, Mahalat, Arak, and through the southern route with the cities of Izeh and Fereydunshahr, through the eastern route with the cities of Daran, Golpayegan and Khansar, and through the western and northwestern route with the cities of Azna, Doroud, Boroujerd, and Khorramabad. In terms of political divisions, this city is located in the Central District and within the Khomeh Rural District. The city of Aligudarz is 152 km far from Khorramabad, 120 km from Boroujerd, 128 km from Arak, 233 km from Isfahan, and 380 km from Tehran (General Directorate of Cultural Heritage, Handicrafts and Tourism, 2017). In terms of communication position to the provincial routes, this city has a pivotal role. Most of the residents of Aligudarz migrated to other big cities of the country such as Tehran, Isfahan, and Arak, while a large number of rural and nomadic residents have settled in this city. Aligudarz was the second largest city in the country after Mashhad (before being divided into three provinces). In Lorestan province, Aligudarz is the largest county. Gaikan Village is located

near Aligudarz County and is a great destination for spring and summer trips due to its high altitude and snow-inclination. This village also has a long historical background, so in addition to a great nature tourism, it is worth getting to know more about the history of this region. Imamzadeh (shrine) of Gaikan village, which is known as Imamzadeh Ibrahim, is one of the attractions of this area that has many visitors. The spring of Gaikan Village is another sight of Aligudarz in this area, which attracts many tourists to this area due to its refreshing climate and nature (General Directorate of Cultural Heritage, Handicrafts and Tourism, 2017; Statistics Center of Iran, 2016). Figure 1 shows the map of the political divisions of Lorestan Province, Aligudarz County, and Gaikan Village.

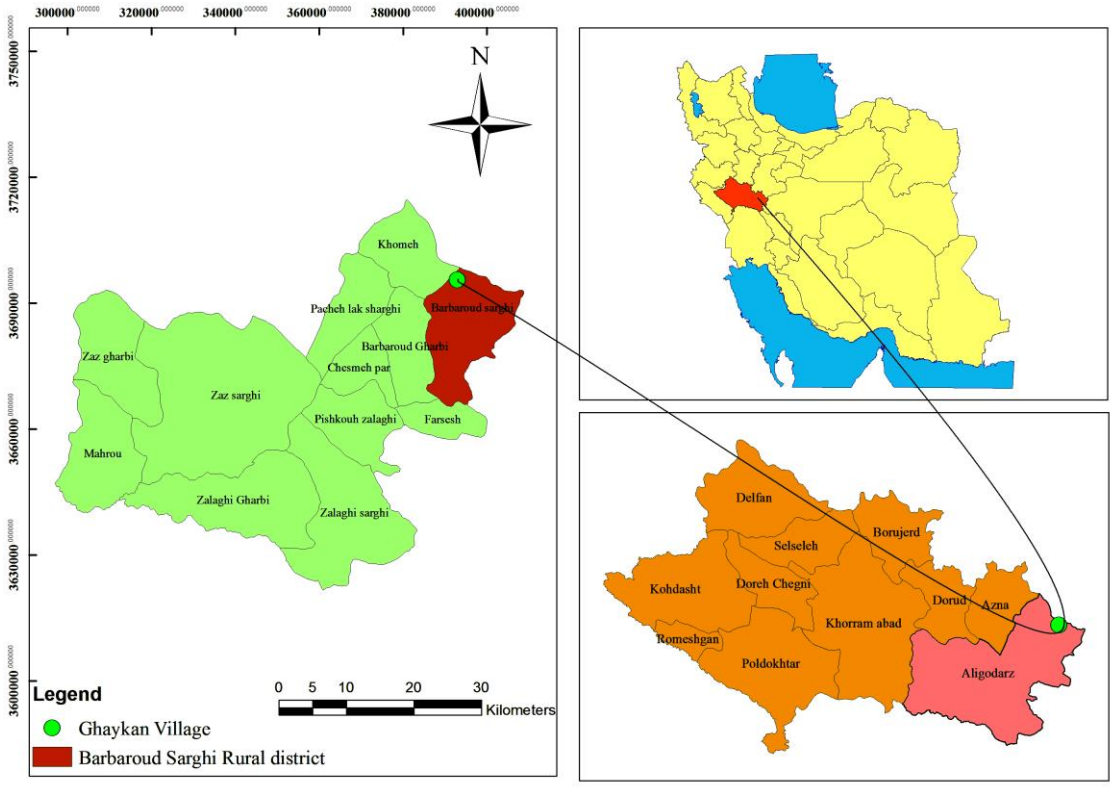


Figure 1. Political divisions of Lorestan Province, Aligudarz County, and Gaikan Village

3.2. Methodology

This research is applied. It used a descriptive-analytical method and a causal and logical model. The statistical population consists of three main groups; the first group includes villagers living in Gaikan (the population of this village according to the last census in 2016 is estimated at 898 people). Gaikan is one of the unique villages and has attractions such as walnut gardens, herbal plants and beekeeping. To determine the sample size of the villagers, a simple random sampling method was used. Based on Cochran's statistics, 131 of these villagers were selected as the sample members. After referring to the study area, 128 questionnaires were successfully collected. The second group consisted of 13 available practitioners in the field of tourism in Lorestan Province (experts of the Aligudarz Cultural Heritage, Handicrafts and Tourism Organization). This group was selected by purposive sampling method. The third group consisted of 129 tourists at the entrance to Aligudarz County (Gaikan village) who had traveled to the region more than twice. Finally, from a total of three statistical populations, 270 people were selected as the sample size for sampling.

The research instrument consisted of a questionnaire that consisted of three parts and its face and content validity were confirmed based on the collective opinion of professors and experts. The reliability of the questionnaire was calculated using Cronbach's alpha test, which indicated the

appropriateness of the research tool (attractions and capabilities of rural tourism with an alpha coefficient of 0.79, obstacles and problems facing rural tourism with an alpha coefficient of 0.80, and components affecting development village tourism has an alpha coefficient of 0.78 (Table 2). SPSS20 software was used for descriptive and inferential tests to analyze the data and achieve the research objectives. A five-point Likert scale was used to analyze the factors and variables. Items in this range included very low, low, medium, high, very high and none which was added for cases where the item did not exist for the respondent. For items from "none" to "very high", scores of 0 to 5 were considered, respectively.

The structural equation model (Amos) was used for data processing. This method is a statistical modeling technique that includes other techniques such as multivariate regression, factor analysis, and path analysis, and its main focus is on latent variables (structures) which are determined using measurable indicators and explicit variables. Given that cause-and-effect relationships between latent variables can be inferred that are not directly observable. The degree of correlation and intensity of each effect on the other can be analyzed (Bentler et al, 1980). The variables measured by the research are listed in the Table 2.

Table 2. Different sections of the questionnaire, research variables and Cronbach's alpha coefficient of each part

Row	Part		Subpart	Number of items	Cronbach's alpha	Measuring tool	References
1	Demographic characteristics		-	-	-	Researcher-made questionnaire	Pouriani et al. (2020), Salehi and Vali Shariat Panahi (2019), Einali et al. (2018), Bayat and Badri (2017), Nugroho et al (2021), Kožić (2012), Harrison and Schipani (2007), Wang et al. (2021), Pazoki and Yourdkhani (2015), Karami Dehkordi et al. (2015), Iorio and Corsale (2010), Darvishi et al. (2014), Oroji et al. (2018).
2	Model of rural tourism development	Attractions and tourism capabilities	Use of organic product (dairy products, vegetables and fruits, etc.)	5	79/0		
			Cultural and religious attractions	3			
			Rural welfare facilities and services	3			
			Natural attractions	3			
3		Obstacles and bottlenecks in rural tourism development	Lack of proper investment	3	80/0		
			Avoidance of using agricultural products and related industries	3			
			Ignorance of local people about the benefits of tourism	4			
			Lack of amenities	3			
			Creating environmental pollution (noise, physical, etc.)	2			

4. Research Findings

4.1. Descriptive findings

Based on the data of Table 3, the results of descriptive statistics show that out of 270 respondents, 139 (51.48%) were male and 131 (48.51%) were female. Also, 47.8% of the respondents were tourists, 47.4% were villagers and 4.8% were experts in tourism industry. The income level of more than 40% of the villagers was very low (less than 500 thousand Tomans). 38.5% of the respondents believed that the rate of planned and legalized tourism in Gaikan Village is high, while 53.8% of the respondents believed that private and public sector investment in the tourism sector of Gaikan village is very low.

Table 3. Summary of descriptive statistics of research variables

Row	Variable	Level	Frequency	Percent
1	Gender	Male	139	51.48
		Female	131	48.51
2	Type of respondents	Experts	13	4.8
		Villagers	128	47.4

Row	Variable	Level	Frequency	Percent
		Tourists	129	47.8
3	Income level (Toman)	much Low (less than 500 thousand)	62	48.4
		Low (500 thousand to one million)	42	32.8
		Medium (1-2 million)	9	7
		Much (2-3 million)	9	7
		Too much (more than 3 million)	6	4.7
4	The rate of planned and legalized tourism in Gaikan Village	Very low	0	0
		Low	2	7.7
		Medium	5	8.30
		High	4	38.5
		Very high	1	23
5	Private and public sector capital in rural tourism development	Very low	1	53.8
		Low	2	15.4
		Medium	1	7.7
		High	2	15.4
		Very high	7	7.7

According to the collected data, 8.3% of experts are 20 to 25 years, 0.5% are 26 to 45 years, 25.0% are 46 to 65 years and 16.7% are 66 years old or above. 0.30% of the rural respondents are 20 to 25 years old, 48.3% are 26 to 45 years old, 0.15% are 46 to 65 years old and 6.7% are 66 years old or more. Moreover, the age of 31.8% of tourists are 20 to 25 years, 53.5% in the age group 26 to 45 years, 13.2% in the age group 46 to 65 years and 1.6% 66 years and older. Also, the education level of 16.7% of experts is diploma, 0.50% are undergraduate and 33.3% of them are postgraduate and above. 9.5% of the respondents of the Gaikan local group are illiterate, 42.9% have a less than diploma degree, 36.5% have a diploma, 7.1% have an undergraduate degree and 0.4% have a postgraduate degree or higher. It the tourist's group, 3.1% of them are illiterate, 15.7% have a less than diploma, 28.3% have a diploma degree, 30.7% have an undergraduate degree and 22.0% have a postgraduate degree or higher.

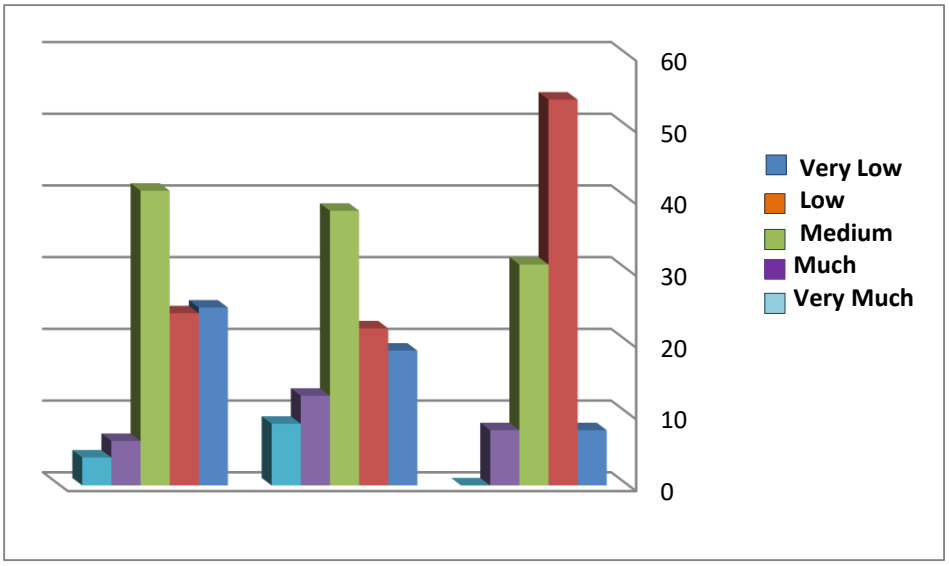


Figure 2. Frequency distribution diagram of the adequate facilities in the region

Regarding accommodation, 53.8% of the experts stated that the accommodation of tourists in Gaikan Village is in open space (personal tents), 23.1% is the house of relatives and friends and 23.1% is Malik-e-Ashtar camp. Villagers believe that 38.3% of tourists accommodate in open space, 4.7% stay in the house of relatives and friends and 57.0% in Malik-e-Ashtar camp. However, the data collected from tourists show that 59.1% of them stayed in the open air, 13.4% of them stayed in the house of relatives and friends and 27.6% of them stayed in Malik-e-Ashtar camp. In this regard, the opinion of the villagers were more in line with the real data collected from the tourists. According to the frequency distribution of the facilities adequacy in the region (Figure 2), the experts believe that the facilities in the region are very low (7.7%), low (53.8%), medium (30.8%), and high (7.7%). According to the villagers, the facilities of the village that can meet the needs of tourists are 18.8% very little, 21.9% low, 38.3% moderate, 12.5% high, and 8.6% very high. However, the tourists believe the adequacy is 24.8% very low, 24.0% low, 41.1% medium, 6.2% high, and 3.9% very high. Also, the economic profitability for the villagers from tourism is shown in Figure (3).

According to experts, tourism in this village has benefit for villagers with a rate of very low 7.7%, low 46.2%, medium 15.84% and high 30.8%. According to the villagers, the profitability of the village is 18.8% very little, 21.9% low, 38.3% medium, 12.5% high, and 8.6% very high. Moreover, tourists believed that the profit from tourism was 20.2% very low, 18.6% low, 38.0% medium, 17.1% high, and 6.2% very high. According to findings, 45.7% of tourists travel to Gaikan Village once a year, 16.3% twice a year, 9.3% three times a year, and 26.4% of them traveled 4 or more times a year. Satisfaction with the facilities among tourists were 7.7% very high, 30.8% high, 38.5% medium, and 23.0% low.

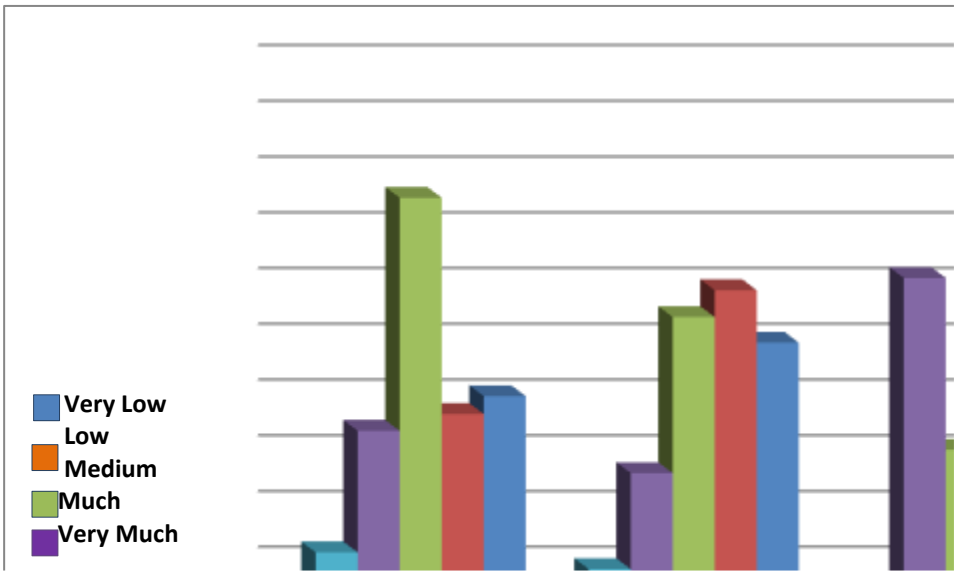


Figure 3. Frequency distribution diagram for tourism economic profitability in Gaikan Village

4.2. Inferential findings

A model of rural tourism development of Gaikan Village

Gaikan rural tourism development model is based on structural equations. This technique is one of the main and new methods for solving complex models with cause and effect relationships in social sciences that allows the researcher to show the various effects of variables on each other by emphasizing the role of measurement errors (Ramin Mehr & Charsetad, 2012). The structural equation model consists of two parts: measurement and structural equations. In the first part, it is determined how the latent variables are measured in relation to observable variables and how valid and reliable they are. In the second part, structural equations determine the causal relationships between latent

variables, and they describe the causal effects and the variance.

Exploratory factor analysis (EFA) was used to evaluate the measurement model. For this purpose, the data were entered into AMOS software. To assess the validity of the data, fit indicators were used, and to evaluate the validity and reliability of latent variables (structure), convergent validity, diagnostic validity (average variance extracted (AVE)), and combined reliability (CR) were utilized, respectively. These indicators are used to confirm the goodness of fits of the theoretical model of research. Table 4 shows the fit indicators of the measurement model. The Chi-square is significant, and it shows no difference between the model and the data, so this indicates an acceptability of the fit of model (Table 4). According to the proposed and calculated criteria for fit model (Table 4) as well as the factor loads of variables (Figure 4), it can be concluded that the latent variables or components can measure the components of rural tourism development and the model is an appropriate fit.

Therefore, after confirming the measurement model and calculating the validity of structure, in this stage, the relationships between the research structures can be tested. For this purpose, the model was implemented in Amos software; the causal relationship between the variables was tested by structural equation modeling.

Table 4. Degree of model compliance with fit indicators

Fit index										
Indexes	Root mean square residual	Standardized root means square residual	df Degree of freedom	Chi Square/df ratio	Goodness of fit index	Normed Fit Index (NFI)	Non-normed fit index (NNFI)	Incremental fit index (IFI)	Comparative fit index (CFI)	Root mean square error of approximation, RMSEA
Normal limit	Close to zero	Close to zero	Greater than zero	Less than 3	0.9 and above	0.9 and above	0.9 and above	0.9 and above	0.9 and above	Less than 08/0
Observed value										
Organic products	0.04	0.05	4.2	2.1	0.92	0.90	0.95	0.94	0.91	0.055
Cultural and religious attractions	0.07	0.08	4.1	2	0.97	0.94	0.94	0.99	0.90	0.04
Rural welfare facilities and services	0.06	0.05	4.4	2.5	0.99	0.96	0.96	0.95	0.96	0.05
Natural attractions	0.07	0.07	2.9	1.4	0.94	0.95	0.94	0.95	0.94	0.033
Lack of proper investment	0.05	0.04	3	1.3	0.97	0.92	0.96	0.92	0.90	0.068
Avoidance of using agricultural products and related industries	0.06	0.07	3.8	2.2	0.97	0.93	0.97	0.99	0.92	0.034
Ignorance of local people about the benefits of tourism	0.06	0.06	2.9	1.1	0.97	0.96	0.96	0.97	0.95	0.126
Lack of amenities	0.05	0.06	4.6	2.7	0.92	0.93	0.96	0.92	0.99	0.057
Environmental pollution by tourists	0.04	0.05	2.7	1	0.95	0.93	0.97	0.92	0.97	0.061

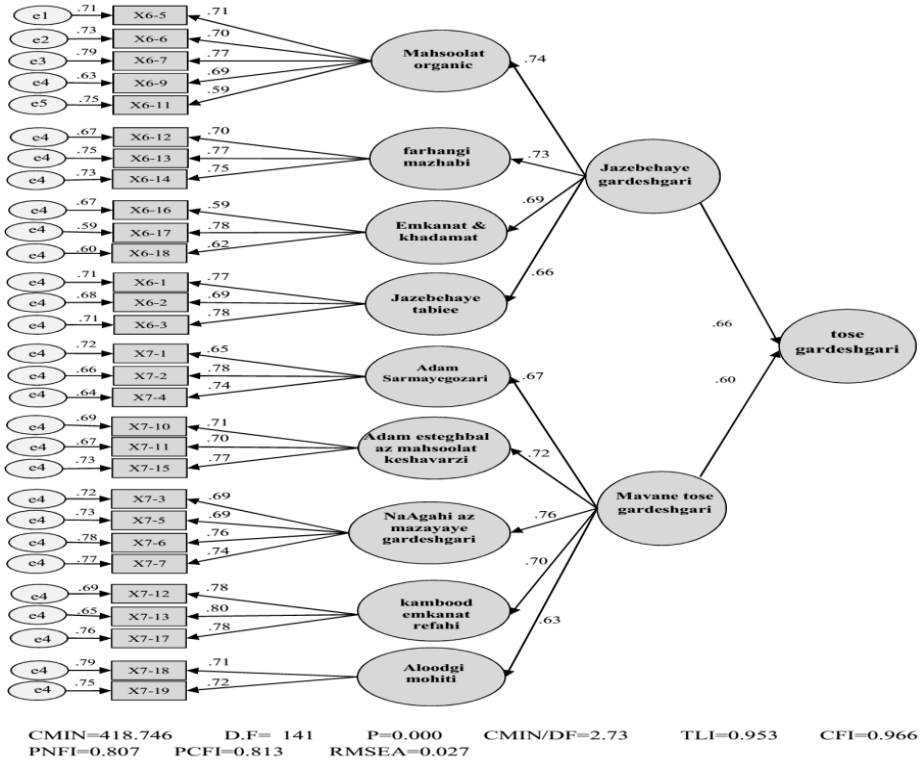


Figure 4: Final approved pattern diagram based on significance coefficient

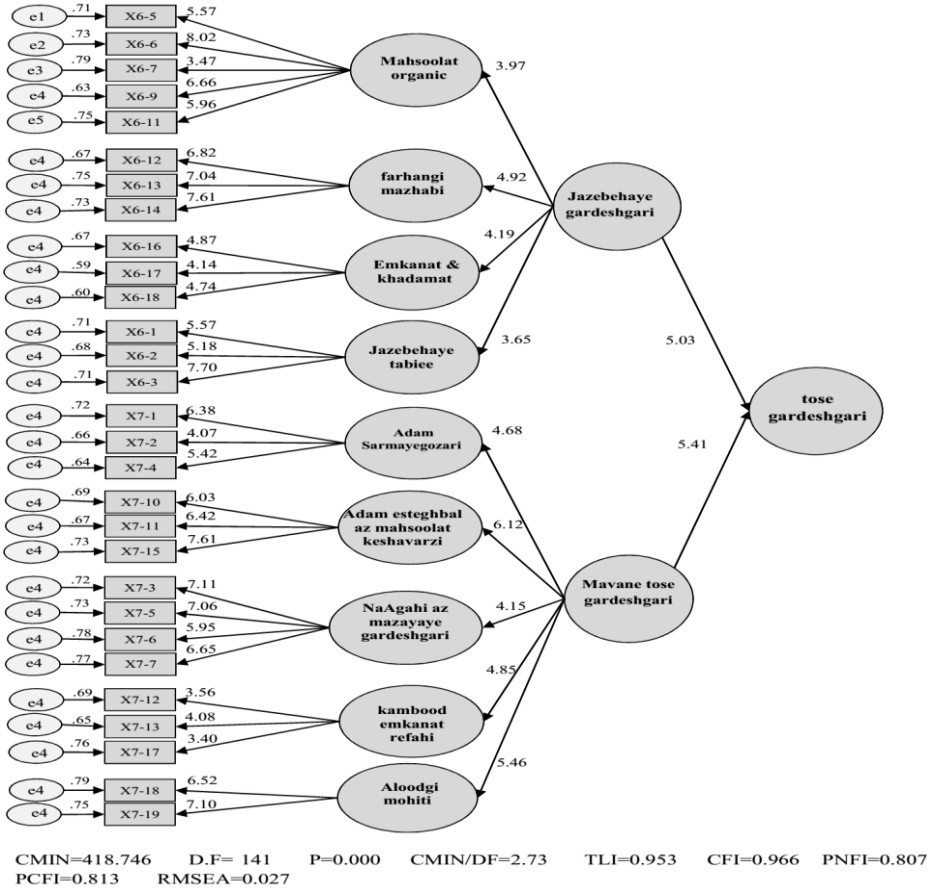


Figure 5: Final approved pattern diagram based on to standardized coefficients

Given that the value of Root mean square error of approximation (RMSEA) for the structural model is 0.027, or less than 0.08 (Figure 5), there is no need to make corrections to use this structure in designing the structural model, and the model has a good fit. The model can be considered reliable statistically and is able to be used to test hypotheses. Moreover, the chi-square to the degree of freedom ratio (CMIN / DF) is 73.2, adaptive fit indexes are 0.95 and destination indexes are above 0.80. And RMSEA index with a value of 0.027 indicates the feasibility of the model.

In order to prioritize the attractions and tourism capabilities of Gaikan Village and to investigate the obstacles and bottlenecks of rural tourism development, Friedman test was used, which is illustrated in Tables 5, 6, 7, 8. The results of Friedman test show that there is a significant difference between the average rank of attractions and tourism capabilities of Gaikan Village. The obstacles and bottlenecks of tourism development of Gaikan Village also shows a significant difference at the level of 99% confidence (1% error). According to the results of Table 5, the value of the chi-square test is 465.185. According to the results obtained from the mean rank (Table 6), the components of "use of organic product" (3.78), "cultural and religious attractions" (2.62), "rural welfare facilities and services" (2.25), and "natural attractions" (1.36), respectively, have the highest rank and importance in the development of tourism in Gaikan Village.

Table 5. Significance of Friedman test

Results of Friedman test	
244	Number of samples
465.185	Chi-square
3	df
0.000	Significance level

Table 6. Ranking of attractions and tourism capabilities in Gaikan Village

Row	Components	Rank average
1	Use of organic product	3.78
2	Cultural and religious attractions	2.62
3	Rural welfare facilities and services	2.25
4	Natural attractions	1.36

Based on the results of Table 7, the value of the Chi-square test is 439.644. Moreover, according to the results obtained from the mean rank (Table 8), the components of ignorance of local people about the benefits of tourism (4.42), avoidance of using agricultural products (3.26), lack of proper investment (3.14), lack of amenities (2.62) and environmental pollution (noise, physical, etc.) (1.56), respectively, rank the most important obstacles and bottlenecks of tourism development of Gaikan Village.

Table 7. Significance of Friedman test

Results of Friedman test	
244	Number of samples
439.644	Chi-square
4	df
0.000	Significance level

Table 8. Obstacles and bottlenecks in rural tourism development of Gaikan Village

Row	Components	Mean rank
1	Use of organic product	3.78
2	Cultural and religious attractions	2.62
3	Rural welfare facilities and services	2.25
4	Natural attractions	1.36

5. Discussion and conclusion

The findings of the structural equation model of rural tourism development in Gaikan evidently confirm that natural attractions (value = 3.97) with the effect of 0.74, rural amenities and services (value = 4.92) with the effect of 0.73, cultural and religious attractions (value = 4.19) with the effect of 0.69 and using organic products (value = 3.65) with the effect of 0.66, sequentially have the greatest impact on the development of tourism in Gaikan Village. Moreover, the results indicate that the identified indicators are confirmed and has a good fit, so the relevant model is approved. The results of the study on the attractions and capabilities of rural tourism in the region are consistent with the findings of Pouriani et al. (2020), Salehi and Vali Shariat Panahi (2019), Einali et al. (2018), Bayat and Badri (2017), and Nugroho et al. (2021). The results of factor analysis for these variables are correspondingly: lack of proper investment (value = 4.68), with the effect of 0.67, avoidance of using agricultural products and related industries (value = 6.12), with the effect of 0.72, Ignorance of local people about the benefits of tourism (value = 4.15), with the effect of 0.76, lack of amenities (value = 4.85) with the effect of 0.70, and creating environmental pollution (value = 5.46), with the effect of 0.63. The identified indicators of obstacles and bottlenecks were approved and have a good fit. Therefore, the relevant model is approved. Findings of research on barriers to tourism development in the region are in consistent with the results of Wang et al. (2021), Pazoki and Yourdkhani (2015) and Karami Dehkordi et al. (2015).

The results of Friedman test show that the components of using organic products, cultural and religious attractions, rural welfare facilities and services, and natural attractions have the highest rank and importance in the tourism development in GaikanVillage. In addition, the most important obstacles of tourism development are ignorance of local people about the benefits of tourism, avoidance of using agricultural products, lack of proper investment, lack of amenities, and environmental pollution (noise, physical, etc.).

Based on the observations in GaikanVillage, in the context of rural tourism, the spatial patterns include recreational and natural attractions, which is one of the effective factors and perhaps the most important factor of tourism in the region. The reason for this can be changes in livelihood pattern of the people and the transition from rural and agricultural society to industrial and urban communities, which caused people to distance themselves from nature. Also, urban lifestyle characterized by problems such as pollution, traffic, monotony, etc., has broadened the need of citizens and people for rural spaces and nature. Threats of tourism and lack of effective and sustainable planning in rural tourism will result in adverse consequences such as pollution of water resources and natural environment, destruction of natural landscapes, increased migration, stagnation of agricultural activities, and consequently raise of unemployment. Proper planning and utilization of tourism opportunities and capacities in this area for sustainable rural tourism achievement can be effective for sustainable development. Therefore, the need for effective planning and management of tourism activities is essential for the development of sustainable rural tourism.

In general, this study showed that the physical effects and consequences of tourism on the region have been less connected to economical and social impacts, and to some extent, it made damages for the environment. Since the Gaikan region has a lot of capacities for tourism, this sector can greatly increase the income of local and rural people, increase the sale of agricultural products, and the prosperity of handicrafts. Moreover, the supply of dairy products and the expansion of the village's external relations with neighboring areas can promote economic growth to the village. In general, considering the capabilities of the region, by doing the necessary activities and facilitating services in the villages or the region, tourism can have favorable economic, social and environmental effects (expansion of green spaces) in Gaikan Village and surrounding areas. Therefore, according to the obtained results, the following practical suggestions can be presented:

- Since from the experts' point of view, the most important attractions and capabilities of the region are the use of organic agricultural products, cultural and religious attractions, rural welfare facilities and services, and natural attractions, it is recommended to invest in the mentioned capabilities and fields;

- Given the lack of transportation, residential and public infrastructure in the region, establishing the accommodations such as hotels as well as camps are suggested in Gaikan region;
- Creating and improving road infrastructure, public transportation between the cities as well as temporary accommodations;
- Training specialized personnel by the General Directorate of Cultural Heritage of Lorestan Province, in order to maximize rural tourism, as well as training the rural tour guides by travel agencies;
- Guide tourists by tour managers, and raise awareness by printing brochures, etc., about avoiding noise and environmental pollution and not damaging agricultural products.
- Organizing, coordinating, controlling, and supervising the development and support of non-governmental organizations pertaining to cultural tourism and rural tourism;
- Appropriate introduction of rural tourism attractions such as natural attractions, clothing, productions (baking bread, animal oil, and dairy products), handicrafts (weaving, rugs, carpets), cultural ceremonies (weddings, mourning, etc.), local music, local folklore, musical instruments, etc. These capabilities can be augmented by the use of the Internet and social networks;
- Training the villagers and make them familiar with the advantages and disadvantages of rural tourism and encouraging them to accept tourists, as well;
- Allocating the required and low-interest bank loans to investors interested in working in the field of rural tourism;
- Creating a clear and appropriate mechanism for rural people to capture the benefits from the revenues of rural tourism;
- Mentioning the employment and economic potential of rural tourism to related organizations and as a result creating sufficient integration in government agencies for planning and supporting the development of rural tourism in Lorestan Province.

Acknowledgments: The current paper is extracted from the Master's thesis of the first author (Sara Zalaqi) in the Department of Geography, Faculty of Literature and Human Sciences, Lorestan University, Khorramabad, Iran.

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Journal of Research and Rural Planning
Volume 11, No. 1, Winter 2022, Serial No. 36, Pp. 41-58
eISSN: 2783-2007 **ISSN: 2783-2791**
http://jrrp.um.ac.ir
Original Article

طراحی مدل معادلات ساختاری امکان‌سنجی توسعه گردشگری روستایی (مطالعه موردی: روستای گایکان شهرستان الیگودرز)

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چکیده مبسوط

۱. مقدمه

انتخاب یک مقصد روستایی، اهمیت ویژه‌ای در روند تصمیم‌گیری گردشگران روستایی ایفا می‌کند، مقاصد روستایی مکان‌هایی هستند که در آن گردشگران ضمن احترام به هویت مناطق روستایی برای گذراندان اوقات فراغت به دنبال بازدید از محیط‌های طبیعی، و لذت بردن از تجربیات اصیل فرهنگی سنتی هستند. گردشگری روستایی را می‌توان تجربه‌ای مبتنی بر کشور تلقی کرد که طیف گسترده‌ای از جاذبه‌ها و فعالیت‌هایی است که می‌توانند در حیطه کشاورزی باشند و یا نباشند و فرصت‌های ارائه خدمات به جوامع محلی را افزایش دهد، در عین حال ماهیت چشم‌انداز جغرافیایی را که به دنبال بهره‌برداری از آن است را به چالش بکشاند. بدین‌سان، این مقاله با هدف بررسی امکان‌سنجی توسعه گردشگری روستایی با استفاده از مدل معادلات ساختاری به بررسی این مهم در روستای گایکان شهرستان الیگودرز پرداخت.

۲. مبانی نظری تحقیق

گردشگری را می‌توان به مثابه نهادی در نظر گرفت که میلیون‌ها برهم کنش در آن صورت می‌گیرد، نهادی که دارای تاریخچه خاص خود بوده و مجموعه‌ای از دانش و اطلاعات در آن انباشته شده و انبوهی از میلیون‌ها انسان در این فرایند اقتصادی درگیر شده و خود را بخشی از بدنه آن احساس می‌کنند. از دیگر ارکان گردشگری، تسهیلات و خدمات گردشگری است، که به عنوان یکی از بنیادی‌ترین اشکال عرضه در صنعت گردشگری بیشترین حجم درآمدزایی را برای جوامع میزبان به ارمغان می‌آورند. محصول گردشگری نه تنها با کالاها و محصولات فیزیکی، بلکه با سایر خدمات نیز تفاوتهایی دارد. به عبارت دیگر در مرحله نخست این محصول در یک دوره زمانی و طی مراحل مختلف تجربه می‌شود و همین امر ارزیابی آن را دشوار و پیچیده می کند. در مرحله دوم این محصول برای گردشگران پر مخاطره است، زیرا علاوه بر داشتن هزینه های فرصت، زمان از دست رفته را نمی توان به دست آورد.

در مرحله سوم بخشی از این محصول مبتنی بر امیال شخصی گردشگران از جمله رهایی از فشارهای زندگی، کسب تجربه های نو، تفریح و خوش گذرانی است. بنابراین برنامه ریزی و توسعه گردشگری مستلزم شناسایی این نوع انگیزه ها و تقاضاهاست، شناخت انگیزه ها و تقاضای گردشگران از وظایف بازاریابان گردشگری است و در نهایت محصول گردشگری دارای قابلیت بهره برداری دوگانه است. یعنی این محصولات فقط مورد استفاده گردشگران غیر بومی قرار نمی گیرد (خینیان، ۲۰۰۹: ۱-۱۴).

۳. روش تحقیق

این پژوهش، به لحاظ هدف کاربردی، و به روش توصیفی ـ تحلیلی است و برای حصول به هدف پژوهش از روش‌های میدانی و پرسشنامه برای گردآوری داده‌ها استفاده شد. پایایی آن با استفاده از آزمون آلفای کرونباخ برای ۲ مؤلفه امکانسنجی (جاذبه‌ها و قابلیت‌های گردشگری روستا، موانع و مشکلات پیش‌روی گردشگری روستا) به ترتیب، ۰/۷۹ و ۰/۸۰ محاسبه شد، که بیانگر مناسب بودن ابزار پژوهش بود. جامعه آماری شامل سه دسته کارشناسان، گردشگران و روستاییان بودند که ۲۷۰ نفر (۱۳ کارشناس، ۱۲۹ نفر

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گردشگر و ۱۲۸ نفر از روستاییان) به روش نمونه‌گیری تصادفی ساده انتخاب شدند. برای تحلیل داده‌ها از تحلیل عاملی اکتشافی و مدل معادلات ساختاری در محیط نرم‌افزار SPSS20 و AMOS استفاده شد.

۴. یافته‌های تحقیق

یافته‌ها نشان داد مهمترین جاذبه‌ها و قابلیت‌های گردشگری روستای گایکان در قالب ۴ جاذبه اصلی قرار دارد که عبارتند از جاذبه‌های فرهنگی و مذهبی؛ استفاده از محصولات ارگانیگ گایکان؛ امکانات و خدمات رفاهی روستا؛ و طبیعی. همچنین مهمترین محدودیت‌ها و موانع توسعه گردشگری این روستا عبارتند از: عدم سرمایه گذاری مناسب، عدم استقبال از محصولات کشاورزی و صنایع وابسته، نا آگاهی مردم منطقه از مزایای گردشگری، کمبود امکانات رفاهی و ایجاد آلودگی‌های محیطی که ارتباط مستقیم و معنی‌داری با توسعه گردشگری روستایی روستای گایکان دارند.

۵. بحث و نتیجه‌گیری

براساس بررسی‌های انجام شده در روستای گایکان، مشخص گردید که الگوی فضای منطقه در چارچوب گردشگری روستایی در برگیرنده گونه‌های گردشگری تفریحی و طبیعت‌گردی است و جاذبه‌های طبیعی یکی از عوامل موثر و شاید مهمترین وجه گردشگری در منطقه باشد؛ زیرا تغییر در الگوی فعالیت و معیشت مردم و گذار از جامعه روستایی و مبتنی بر کشاورزی به جامعه‌ای صنعتی و شهری باعث دوری و گسست مردم از طبیعت شده است. همچنین زندگی شهری با مشکلاتی مانند آلودگی، ترافیک، یکنواختی و غیره، نیاز شهروندان و مردم به فضاهای روستایی و طبیعت را دوچندان کرده است. تهدیدهای گردشگری و نبود برنامه‌ریزی موثر و پایدار در گردشگری روستایی، موجب پیدایش پیامدهای نامطلوبی مانند آلودگی منابع آب و محیط طبیعی، تخریب چشم اندازهای طبیعی، افزایش مهاجرت، رکود فعالیت های کشاورزی به دلیل کوهستانی بودن منطقه و رشد بیکاری آشکار و پنهان شده است. در حالی که با برنامه ریزی و بهره برداری مناسب از فرصت ها و ظرفیت های گردشگری این ناحیه، برای دستیابی به گردشگری پایدار روستایی، می توان فعالیت‌های موثری برای تحقق توسعه پایدار انجام داد. از این‌رو، لزوم برنامه‌ریزی و مدیریت موثر فعالیت‌های گردشگری برای توسعه گردشگری پایدار روستایی ضروری است. بنابراین، به طور کلی یافته‌های این پژوهش نشان داد که آثار و پیامدهای کالبدی گردشگری بر منطقه، کمتر از بخش‌های اقتصادی و اجتماعی بوده است و تا حدودی به محیط زیست آسیب وارد کرده و منجر به آلودگی شده است. با توجه به اینکه، منطقه گایکان از ظرفیت‌های فراوانی در زمینه گردشگری برخودار است، گردشگری می‌تواند بر افزایش درآمدهای مردم منطقه و روستا، افزایش فروش محصولات کشاوری، رونق صنایع دستی نیز بشدت تاثیرگذار باشد.

کلیدواژه‌ها: امکان‌سنجی، گردشگری روستایی، مدل معادلات ساختاری، روستای گایکان، شهرستان الیگودرز.

تشکر و قدردانی

پژوهش حاضر، برگرفته از پایان نامه‌کارشناسی‌ارشد سارا زلقی، گروه جغرافیا، دانشکده ادبیات و علوم انسانی دانشگاه لرستان، خرم آباد، ایران است و فاقد حامی مالی می‌باشد.

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How to cite this article:
Zalaqi, S., Amiri, A. & Moradi, H. (2022). Proposing a structural equation model for feasibility of rural tourism development (Case study: Gaikan village of Aligudarz County). *Journal of Research & Rural Planning*, *11*(1), 41-58.
http://dx.doi.org/10.22067/jrrp.v11i1.2106-1015

Date:
Received: 03-08-2021
Revised: 02-10-2021
Accepted: 01-11- 2021
Available Online: 01-12-2021

Journal of Research and Rural Planning
Volume 11, No. 1, Winter 2022, Serial No. 36, Pp. 59-79
eISSN: 2783-2007 **ISSN: 2783-2791**
http://jrrp.um.ac.ir

Original Article

Performance Evaluation of the Modern Rural Management based on Good Governance Approach (Case Study: Villages in Central District of Karaj County)

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Abstract

Purpose- At the local level, the role of rural management in achieving optimal rural planning and development goals is significant. There are several approaches to rural management, one of which is good rural governance. In this regard, the purpose of this study is to evaluate the performance of new rural management with an emphasis on good governance indicators for the villages in the Central District of Karaj County .

Design/methodology/approach- Quantitative approach was used in conducting this research. The statistical population of the study includes 7 villages. 145 households were sequentially determined based on random sampling and using the modified Cochran's formula. SPSS software and FARAS model were utilized to analyze the data.

Findings- The results showed that the situation of governance indicators in the studied villages is lower than average. In addition, the results of the correlation between the indicators of good rural governance showed that the management system is the desired and subject to development in all indicators of good rural governance from the point of view of the villagers. Also, the ranking of the indicators of good governance using the FARAS model substantiated that the social participation index has the highest rank from the of experts' point of view .

Research limitations/implications- The outbreak of corona virus interfered with the process of data collection and information in the studied villages. This impeded the process of completing the research. In this regard, to reduce the negative impact of this restriction, interviews and completing questionnaires were conducted through the Internet .

Practical implications- Activities should be taken through interaction of non-governmental organizations, governmental and public organizations and the private sector, removing existing obstacles, financial and executive constraints for modern rural management in the villages of the Central District.

Originality/value: The study is conducted by the mentioned researchers and in accordance with the official rules and procedures, and all dissertation, articles, books, etc. were referred accordingly. The originality of the present study is in applying the FARAS fuzzy model for the studied villages in the Central District of Karaj County.

Keywords- Modern management, Good governance, Rural settlements, Karaj County.

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How to cite this article:
Mohammadi, M., Afrakhteh, H. & Javan, F. (2022). Performance evaluation of the modern rural management based on good governance approach (Case study: Villages in Central District of Karaj County). *Journal of Research & Rural Planning*, *11*(1), 59-79.
http://dx.doi.org/10.22067/jrrp.v11i1.2108-1021

Date:
Received: 06-08-2021
Revised: 27-09-2021
Accepted: 01-11- 2021
Available Online: 01-12-2021

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1. Introduction

In recent decades, transition has been notified from government to new processes of rural administration, specifically governance in rural areas. Governance is the boundary between government and civil society and somehow involves the participation of states, private companies, citizens and local communities to design and implies the economic policies, social and environmental reforms. The emphasis of the governance is on increasing democracy and citizen participation in all matters related to it, including decision-making, planning, and implementation, so that citizens have an informed and active participation in all matters.

Good governance is a model presented by developed countries and international institutions after the inefficient outcome of previous development mechanisms, especially in developing countries for the establishment and institutionalization of civil society and policies. A good governance perspective asks organizations to manage public affairs in a transparent, accountable, and law obedient way. At village scale, the rural management, given the two factors of democratized process and having a close contact with the people, can be the best mechanism for achieving good governance and rural development (Taghdisi et al., 2011). Theoretically, the foundation of local organizations is based on the principle of people's control over the people, and participation is fundamental in the essance of these institutions (Nemati & Badri, 2007). Therefore, one of the goals of rural management is to comply with the principles and criteria of good governance, because villagers who are satisfied with local management perform their duties and participate more confidently (Firoozabadi & Imani Jajarmi, 2012, 69). In fact, having different principles, criteria and indicators from the approaches proposed in the previous rural management system and rural governance is a new process that empowers the residents of rural areas in various fields. The most important principles, criteria and indicators of good rural governance include participation, responsiveness, transparency, rule of law, consensus-orientedness, effectiveness and efficiency, equity and inclusiveness, and accountability (Rahmani Fazli and et al, 2014).

The establishment of rural municipality and councils in the villages of the country is in fact a turning point in the villagers' governing of rural management (Nasiri, 2010). Therefore, evaluating the performance of new rural management based on good rural governance is not only pivotal for proper organization and bolstering systems, but it also is important in fulfilling the prophecy of rural management and solving its problems. Today in the process of rural management, it is expected to implement the principles of good governance in rural areas and rural practitioners tend to enhance the satisfaction of villagers in line with good governance. Nevertheless, in many villages of Iran, including the Central District of Karaj County, one can identify a long distance between new rural management and good governance indicators. The weak condition of these indicators might be confirmed by initial studies and field observations. The low level of some indicators of good governance can be observed. This issue has created challenges for rural management and achieving good governance in the region. In addition, the background of villages in Central District of Karaj County and the lack of a comprehensive evaluation of their performance, especially in the framework of good rural governance, verifies the need for this research. Given the reasons for the new methods of rural management and the challenges associated with it, the necessity of such an argument becomes more transparent. Also, the scientific findings of this research can be an important step towards promoting the quality of rural management in the region. Therefore, this study seeks to examine the performance of new rural management with an emphasis on good governance in the villages of the Central District. Consequently, the present study seeks to investigate the following questions:

1. What is the condition of the new rural management with an emphasis on good rural governance in the villages in Central District of Karaj County?
2. Which of the indicators of good rural governance has the highest rank in the villages in Central District of Karaj County?

2. Research Theoretical Literature

New or modern rural management means the science of integrating and regulating various natural, human, economic, etc. factors in rural society, and one of its most important goals is the developing rural settlements, followed by sustainable rural development (Pahuja, 2015). Village management arrangement, including the village managers, administrators and council members is as a symbol of modern local management, which should be able

to turn the village into a professional organization (Abraham, 2013). This principle is also realized when rural municipality and council can have the power of action, initiative in development, construction and policy-making with an efficient model. Recognizing the concept of local development, it puts the emergence of initiatives, collectivism and participation on its agenda (Mahdavi & Karimi, 2012). Therefore, new rural management is a systemic theory. In this regard, village managers and council members, in the role of new rural managers, should consider the village as a group with a systematic and comprehensive view and know how to think and act systematically (Subedi, 2012). Governance refers to the relationship between government and civil society, rulers or states and those being ruled, and governed (McCarne et al., 1995). Governance is the exercise of administrative, economic, and political authority to coordinate the management of the country at all levels, and includes mechanisms, processes, and institutions through which residents intertwine their interests, pursue their rights, and fulfill their duties, and resolve their disputes (UNDP, 2000). Governance recognizes the existence of power within and outside of formal and informal institutions, and includes key groups of government, the private sector, and civil society actors, as well as the decision-making process (Un-Habitat, 2009). Villages are obliged to provide the way for the development of democracy. This emerging form is called Good Government, Movement or Governance (Jahanshahi, 2007). In this way, rural governance strengthens the realization of public sector interests. Rural governance, due to the existence of collective wisdom and participation in it, leads to adaptation and conflict resolution and contributes to the sustainability of rural development. The government bestows a favorable political and legal environment. The private sector creates employment and income, and civil society provides political and social interaction by mobilizing groups to participate in economic, political, and social activities (Un-Habitat, 2009). In the following, good governance strategies are examined.

Institutional development strategy: The main emphasis of this approach in the proposed principles and policies is based on mobilizing intra-regional capacities by development of supplement based on local resources of the regions and the development of effective and efficient institutions in the development of the region, as the main key to development. The principles and methods of this approach, which are significantly different from the traditional principles of regional development, are based on bottom-up, regional-oriented, long-term, pluralistic measures and in the form of network and hierarchical systems and relations. This approach emphasizes indigenous knowledge, collective actions, institutionalization processes and considers all aspects of development while paying attention to participatory aspects and emphasizing planned techniques based on collective actions and decisions.

Participatory development theory: The participatory development approach, especially in the mid-1970s, attempts to fill the huge gap in public participation for the development process and induces two perspectives: First, participation of people in the various stages of programs related to their lives is an aim in general; and second, real development is always achieved through participation and public activities (Anbari, 2011). Participation has functional consequences Strengthening positive interpersonal behavior, reducing distrust and indifference, considering oneself as having a role and promoting self-esteem (Ghaffari, 2001). Given the key role of participation in human-centered development, Rahnama accounts four functions for participation: A. cognitive function, B. social function, C. political function, D. instrumental function (Ghaffari, 2001).

Empowering strategy: Depending on the power structure, empowerment can be productive (active participation) or unproductive (passive participation), so that changes in the power structure in order to fully empower local communities would ensure their self-reliance for local management (Giampiccoli & Mtapuri, 2012: 6), and consequently this influences the behavior of rural society towards rural developments (Monkman et al., 2007). Thus, the adoption of appropriate policies for empowering local community to participate in the process of rural development projects is known as one of the most important factors in rural development (Chen et al., 2016). To this end, the focus is on empowerment methods to enhance the readiness of rural communities for participating in the process of sustainable development (Waligo et al., 2013).

Capacity building strategy: The main component in the capacity building process is resident communities. Capacity building is used when a group of local communities in a city or village does not have enough power and ability to mobilize internal resources and capital, nor does it use talents

and skills, and as a result other groups gain more advantages. Capacity building has a meaning beyond education. In 1999, Mr. Garlick, director of the Regional Research Institute and a professor at University Cross Southern (Australia), identified five important factors in the community-based capacity building process:

A. Knowledge creation: It is in order to improve skills, develop and strengthen the process of research and learning. This refers to strengthening the capacity of local communities to adapt to the ongoing growth, production, and application of their ideas. Therefore, retraining and maintaining the required skills and continuity in organizational learning will result in the creation of products that residents want;

B. Management and leadership: To build capacity for development and control over what may happen in an area (the area which is planned and targeted);

C. Networking: It aims building capacity in the formation of companies and cooperatives (unions);

D. Strengthening and expanding collective mechanisms: Valuing collective work and creating the ground for expanding and strengthening collective work in order to achieve the desired goals;

E. Support information: Providing access to local communities for the collection, access, and use of information (Mc Ginty and Cook, 2002).

Studies and references that can be considered as the background of this study, are as follows:

Heidari Mokarar and Sanjarani (2017), stated that good governance in rural management provides a good basis for the proper sustainable rural development, as well as in the process of sustainable political, economic, social, spatial and territorial development and modern rural management of the country. Ghadermarzi and Jamini (2017) found that the level of satisfaction of villagers in Shaho District from performance of rural managers, emphasizing on indicators of good rural governance, shows the score of 2.8 below the average. The highest level of rural satisfaction with new rural managers is for the collective agreement index and the lowest satisfaction belongs to the index of responsibility. Nowruzi and Ebrahimi (2018) concluded that indicators of good governance show less than the desired level, and according to the results of one-sample t-test the total score is 3.24. In index level, the justice index was higher than the researcher's average (3.5) and others were lower than the desired level. The results of Kruskal–Wallis test for comparing the rank of villages and variance analysis both show that there is a significant difference between them in terms of good governance. Mousavi et al. (2019) concluded that among the eight indicators studied, the average of four indicators of participation, responsiveness, transparency and equity and inclusiveness were higher than the average and the total average of the four indicators of effectiveness and efficiency, rule of law, accountability and consensus-orientedness were lower than the average. The deviation of indicators from the average shows the weakness of rural performance in most indicators of good governance from the respondents' point of view. Khoshfar et al. (2019) concluded that the level of satisfaction of the villagers of Zarindasht County for indicators of good rural governance is in an unfavorable situation. The results of fuzzy TOPSIS showed that in 23 sample villages, six villages have good level governance, nine villages have moderate level governance and eight villages have poor level governance. The results of prioritizing the indicators of good rural governance, using Friedman test, show that the equity and inclusiveness indees have the highest average and the participation index has the lowest average in the studied villages. Connol and Zelokezisti (2011) describe the indicators of good governance from different perspectives and introduce the concept of good governance quality for the participatory as new dimensions. Moreover, Abraham (2013) concluded that the establishment of Anand Rural Management Institute has been quite effective and therefore, other governmental and non-governmental institutions have been established with similar goals to improve rural management. Jacka (2016) examined participatory governance in China and concluded that the existence of non-governmental organizations is an effective factor in empowering and increasing social participation.

Finally, it was found that most studies were discussed about the effects of good governance in rural management with emphasis on sustainable development, and the feasibility of good governance indicators in rural areas, review of good governance indicators in various dimensions and review of participatory governance. Although the findings of Khoshfar et al. (2019) and Ghadermarzi and Jamini (2017) show similarities with this research, it hasn't been conducted any studies in terms of performaning modern rural management with good rural governance approach in the study area, nor in the research method section and using a combination of FARAS and FANP methods.

It can be concluded (see Figure 1) that rural governance as a new process in governing has its indicators which can raise new issues in rural management and empowering rural residents in different areas of management, including decision making, implementation and evaluation. Therefore, the rural governance approach is a desirable basis in the process of sustainable political, economic, social, spatial and territorial development and modern rural management of the country. The formation of governance indicates a fundamental change in the structure of government in rural areas, which is the transition from the opposite periods of governance, from patriarchy and statism to governance which promises a change in management structure and rural development perspectives. Governance, with its specific indicators and components such as participation, equity, etc., suggests the necessary ability for fundamental reforms in rural areas. In most countries of the world, governance has been discussed at the urban level, and therefore one of the problems of good rural governance is the urban inclination of its tools and components. Despite some challenges, this approach is being implemented in Iran. The national require to create and implement this model is quite perceptible, and the issue is the means to create the necessary motivation and support for its realization. Furthermore, after examining the texts related to good rural governance, it is evident that the good rural governance approach is one of the newest and most popular approaches of modern rural management in Iran. Relying on the three main pillars of government, the private sector, and civil society, this approach emphasizes the active and effective presence of these pillars under participation, responsiveness, rule of law, effectiveness and efficiency, and accountability, consensus-orientedness, monitoring and human development. Also, the development of good governance approach requires that people and rural communities in civil society organizations be organized into small social networks to use and manage their abilities, talents and creativity in an appropriate way. This approach has considerable capability in explaining the realities and can be used as a practical guide in the field of sustainable rural development policy, because it pays special attention to institution building, capacity building, empowerment and participatory development. Therefore, according to the cases raised, it can be said that modern rural management with an emphasis on good rural governance (environmental, ecological, social, economic and physical) and focusing on the aspects of participation, empowerment, capacity building, institutionalization, as the most important factors, will strengthen these foundations in rural areas and also pave the way for the development of rural settlements in various economic, social dimensions among others (Figure 1).

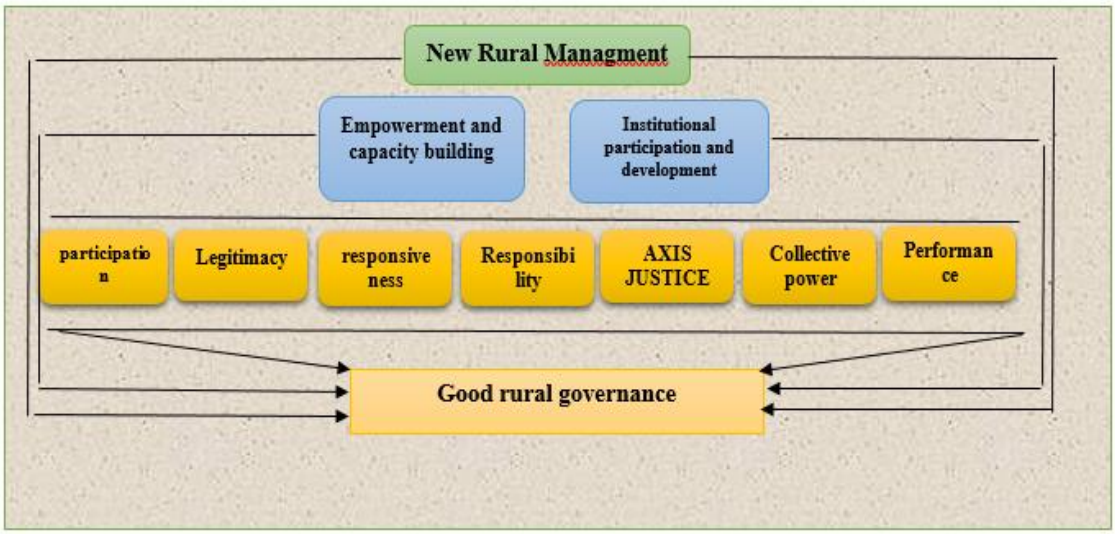


Figure 1. Theoretical framework of research

3. Research Methodology

3.1 Geographical Scope of the Research

Karaj County with Karaj City, as the capital is the largest city in Alborz Province, and occupies an area of 2457 square kilometers. According to the political divisions of the country, this county used to be considered as one of the subordinate districts of Tehran from 1937 to 1955, but from February 1955 became a county. Regarding geographical location, this county is limited to Mazandaran Province from the north, Shemiranat and Tehran Counties from the east, Zarandieh and Shahriyar Counties from the south, Buin Zahra County from the southwest and Savojbolagh and Nazarabad Counties from the west. and the highest peak of this county called Ventar Mountain at a height of 3941 meters above sea level is located in Central Alborz and 8 kilometers far from Asara. The studied villages are in the Central District of Karaj County in three rural districts (Garmadreh, Mohammadabad, and Kamalabad). The selected villages are as following: in Garmadreh Rural District (Bagh Pir Village), Mohammadabad Rural District (Aliabad Gooneh and Golestanak Villages), in Kamalabad Rural District (Mahmudabad, Darvan, Atashgah, Siah Kalan Villages) (Statistical Centre of Iran, 2016).

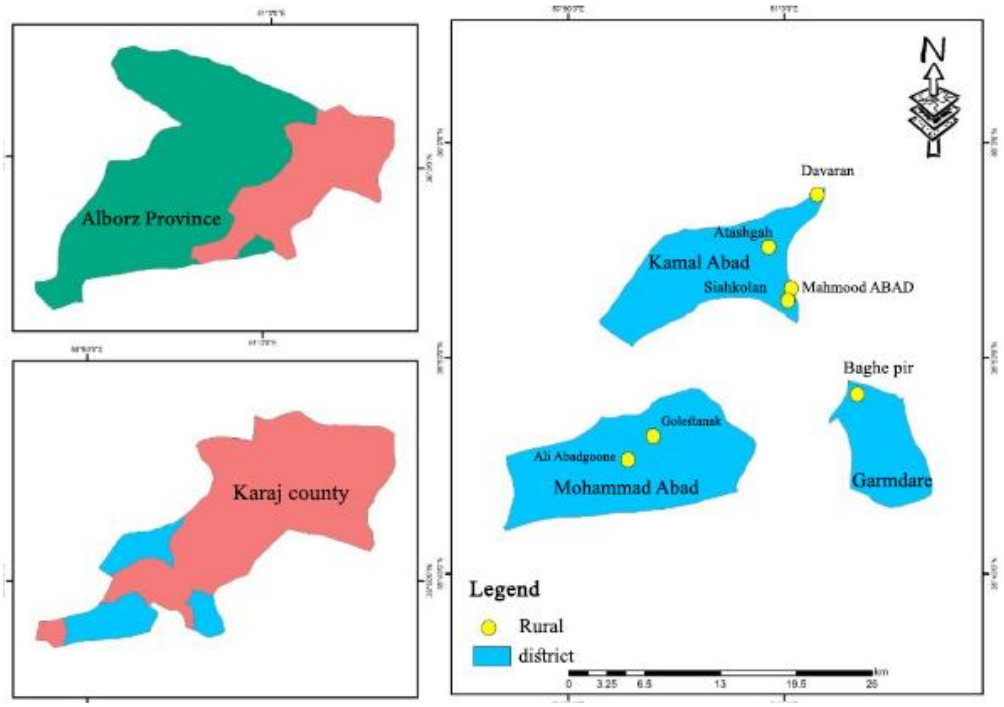


Figure 2. Geographical location and distribution of the studied villages in the province and county

3.2. Methodology

This study seeks to analyze the performance of modern rural management based on indicators of good governance (case study: Central District of Karaj County). The findings of this study can lead to practitioners and decision makers in rural management and good rural governance. The method and data gathering tools are based on documents and field studies and using questionnaires and observations of the villages, and interviews with experts. The statistical population consists of two parts. The first part is the residents of all villages in Central District in three rural districts (Garmadreh, Mohammadabad, and Kamalabad). The statistical population is according to the number of populations in 2016. Based on 2016 census, the total household of the studied villages is 3213, which based on random sampling and using the modified Cochran's formula, 145 people were selected as sample population. The ratio of community in each of the villages is also expressed in Table 1. It is also worth mentioning that in the second part, the statistical population is related to experts in the field of studies, which was selected as a sample population based on purposive sampling of 20 people. SPSS software and FARAS model were used for data analysis.

In order to achieve the purpose of the research, in addition to collecting data directly from the population of villages in the Central District of Karaj, a researcher-made questionnaire was used.

This questionnaire was developed by studying the relevant literature and searching websites, numerous domestic and foreign articles in order to determine the performance of rural management based on indicators of good rural governance in the Central District of Karaj County. Its validity was assessed using the opinions of faculty members and experts familiar with the villages and the necessary corrections were made. It is also noteworthy that in order to prove the reliability of the questionnaire of this research, Cronbach's alpha test was applied. In order to measure the reliability of the measurement tool using pre-test findings, 30 questionnaires were completed and the Cronbach's alpha was calculated at 0.87. The obtained values show that the reliability of the questionnaire was acceptable for conducting the research.

Table 1. Sample population in the studied villages
Source: Statistical Centre of Iran, 2016

Village	Year	Population	Statistical sample
Bagh Pir	2016	33	4
Aliabad Gooneh	2016	1015	45
Golestanak	2016	539	24
Mahmudabad	2016	1254	52
Dorvan	2016	64	5
Atashgah	2016	108	6
Siah Kalan	2016	200	9
Total	2016	3213	145

The studied variables in the quantitative part of the research include dependent and independent variables as follows. The dependent variable of this research is good rural governance. This variable is a function of the independent variables that are described below. This variable depends on 8 indicators (in 48 items) to measure and predict the development of local communities, which comprises “effectiveness and efficiency, responsiveness, social participation, rule of law, equity and inclusiveness, accountability, consensus-orientedness, monitoring” (Table 2 & 3)

Table 2. Indicators and constituent items
Source: Hesam et al. (2014), Rahmani Fazli et al. (2014), Eftekhari et al. (2012), Ghadermarzi and Jamini (2017), Khoshfar et al. (2019)

Indicator	Row	Items	Scale
Effectiveness and efficiency	1	Village development	Ordinal
	2	Provide a vision of the future situation of the village	Ordinal
	3	Satisfaction of the villagers	Ordinal
	4	People's participation	Ordinal
	5	Reducing costs and improvement the quality of services in the village	Ordinal
	6	Coverage of services in the village level	Ordinal
Responsiveness	7	Response to complaints of villagers from administrations	Ordinal
	8	Responsibility for your duties	Ordinal
	9	Holding public meetings to explain the necessary measures in the village	Ordinal
	10	Establish a mechanism to convey the needs and demands of the villagers to high-ranking officials	Ordinal
	11	Efficient response of village managers to the people	Ordinal
	12	The honesty manners of village managers in presenting programs	Ordinal
	13	Organizing public meetings to inform the villagers	Ordinal
Social participation	14	Attracting people's participation	Ordinal
	15	Solidarity between people and officials	Ordinal
	16	Helping rural people in house building	Ordinal
	17	Peoples’ participation in the process of infrastructure reconstruction	Ordinal
	18	Villagers’ willingness to participate in training courses	Ordinal
	19	Increasing the participation of villagers in development projects	Ordinal
Rule of law	20	Fulfill your legal duties	Ordinal

Indicator	Row	Items	Scale
	21	Nepotism in projects	Ordinal
	22	Coercive influence of powerful actors in village-related decisions (corruption measurement)	Ordinal
	23	Villager's rights	Ordinal
	24	Village manager's acknowledgment of villager's rights	Ordinal
	25	Village managers attachment to customs and traditions	Ordinal
	26	Commitment of village managers to equality under the law	Ordinal
	27	Village managers knowledge about the rights of the residence	Ordinal
	28	Resistance of village managers against illegal behaviors of villagers	Ordinal
Equity and inclusiveness	29	Provide opportunities for women to play a role in miscellaneous activities	Ordinal
	30	Supporting the poor and vulnerable	Ordinal
	31	Justice in the equal and inclusive distribution of facilities	Ordinal
	32	Access to equal opportunities	Ordinal
	33	Carrying out village projects on time	Ordinal
	34	Recognition of the common good	Ordinal
Accountability	35	Accountability in terms of observing norms and laws	Ordinal
	36	Social participation of villagers	Ordinal
	37	Political participation of villagers	Ordinal
	38	Active presence in the political activity of the villagers	Ordinal
	39	Be aware of the importance of basic natural resources and plant and animal species and reducing environmentally detrimental behavior	Ordinal
	40	Efforts to improve the environment	Ordinal
Consensus oriented	41	Public consensus on actions and activities	Ordinal
	42	Success in collective activities	Ordinal
	43	Agreement and consensus of village managers and residents	Ordinal
Monitoring	44	The extent of the familiarity of village managers to villagers' rights	Ordinal
	45	Informing the villagers about activities	Ordinal
	46	Inform the people about the rules and regulations	Ordinal

4. Research Findings

4.1. Investigating the performance of rural management for indicators of good governance

A one-sample t-test was used for the performance of rural management with an emphasis on the indicators of good rural governance in the villages. In this regard, the lower the average score of each item than the average of the Likert scale (3), the weaker performance of rural management. On the other hand, the higher the average score of each item, the stronger performance of rural management. Additionally, in this test if the value of significant level (sig.) is less than 0.05, it indicates that the average of the sample can be generalized to all residents of villages in the Central District of Karaj County.

Table 3. Rural management performance with an emphasis on good governance indicators

Indicator	Mean	T	Significance (2 domains)	Confidence interval for difference in means 0.95	
				High	Low
Effectiveness and efficiency	3.00	37.674	0.000	3.09	2.89
Responsiveness	3.03	46.729	0.000	3.13	2.96
Social participation	3.14	39.410	0.000	3.23	3.03
Rule of law	3.04	38.950	0.000	3.15	2.91
Equity and inclusiveness	3.01	58.927	0.000	3.14	2.94
Accountability	3.00	49.668	0.000	3.14	2.85
Consensus oriented	3.03	61.092	0.000	3.16	2.93
Monitoring	3.02	57.421	0.000	3.17	2.89

As Table 3 shows, the rural management performance in indicators efficiency and effectiveness with an average score of 3.00, accountability with an average score of 3.03,

social participation with an average score of 3.14, rule of law with an average score of 3.04, equity and inclusiveness with a average score of 3.01, accountability with an average score of 3.00, consensus-orientedness with an average score of 3.03, monitoring with an average score of 3.02 show the amount above the average (3), which indicats the downward performance of rural management for indicators of good governance in the villages of the Central District of Karaj County.

Table 4. Rural management performance with an emphasis on good governance indicators

Indicator	Item	Mean	T	Level of significance (2 domains)	Confidence interval for difference in means 0.95	
					High	Low
Effectiveness and efficiency	Village development	2.88	37.674	0.000	3.00	2.67
	Provide a vision of the future situation of the village	2.78	37.729	0.000	2.89	2.71
	Satisfaction of the villagers	2.91	37.410	0.000	3.03	2.78
	People's participation	2.88	37.950	0.000	2.98	2.67
	Reducing costs and improvement the quality of services in the village	2.79	37.927	0.000	2.89	2.71
	Coverage of services in the village level	2.84	37.668	0.000	2.4192	2.76
Responsiveness	Response to complaints of villagers from administrations	2.92	37.877	0.000	3.04	2.85
	Responsibility for your duties	2.89	37.329	0.000	3.16	2.88
	Holding public meetings to explain the necessary measures in the village	3.01	37.119	0.000	3.12	2.88
	Establish a mechanism to convey the needs and demands of the villagers to high-ranking officials	3.02	37.859	0.000	3.0	2.91
	Efficient response of village managers to the people	3.01	37.810	0.000	3.09	2.99
	The honest manners of village managers in presenting programs	2.98	37.273	0.000	3.00	2.78
	Organizing public meetings to inform the villagers	3.00	37.223	0.000	3.09	2.98
Social participation	Attracting people's participation	3.07	37.894	0.000	3.13	3.00
	Solidarity between people and officials	3.08	37.961	0.000	3.11	3.02
	Helping rural people in house building	3.09	37.563	0.000	3.13	2.98
	Peoples' participation in the process of infrastructure reconstruction	3.13	37.680	0.000	3.21	2.98
	Villagers' willingness to participate in training courses	3.10	37.307	0.000	3.21	3.02
	Increasing the participation of villagers in development projects	3.12	37.567	0.000	3.24	3.01
Rule of law	Fulfill your legal duties	3.00	37.683	0.000	3.08	2.89
	Nepotism in projects	2.98	37.252	0.000	3.09	2.78
	Coercive influence of powerful actors in village-related decisions (corruption measurement)	2.89	37.576	0.000	2.98	2.78
	Villagers' rights	2.91	37.680	0.000	3.00	2.87
	Village manager's acknowledgment of villager's rights	2.88	37.281	0.000	3.00	2.76
	Village managers attachment to customs and traditions	3.00	37.590	0.000	3.06	2.90
	Commitment of village managers to equality under the law	2.94	37.999	0.000	3.04	2.78
	Village managers knowledge about the rights of the residence	3.07	37.919	0.000	3.14	2.99
	Resistance of village managers against illegal behaviors of villagers	2.98	37.683	0.000	3.07	2.81
Equity and	Provide opportunities for women to play a role in	3.00	37.692	0.000	3.10	2.89

Indicator	Item	Mean	T	Level of significance (2 domains)	Confidence interval for difference in means 0.95	
					High	Low
inclusiveness	miscellaneous activities					
	Supporting the poor and vulnerable	2.91	37.526	0.000	3.00	2.78
	Justice in the equal and inclusive distribution of facilities	2.92	37.414	0.000	3.00	2.87
	Access to equal opportunities	2.88	37.896	0.000	2.95	2.78
	Carrying out village projects on time	2.82	37.662	0.000	2.99	2.77
	Recognition of the common good	2.65	37.738	0.000	2.78	2.51
Accountability	Accountability in terms of observing norms and laws	2.87	37.054	0.000	2.92	2.81
	Social participation of villagers	3.01	37.320	0.000	3.05	2.97
	Political participation of villagers	3.08	37.886	0.000	3.14	3.00
	Active presence in the political activity of the villagers	2.80	37.983	0.000	2.98	2.73
	Be aware of the importance of basic natural resources and plant and animal species and reducing environmentally detrimental behavior	2.98	37.286	0.000	3.04	2.78
	Efforts to improve the environment	2.92	37.347	0.000	3.03	2.78
Consensus oriented	Public consensus on actions and activities	2.78	37.697	0.000	2.89	2.60
	Success in collective activities	2.98	37.061	0.000	3.04	2.87
	Agreement and consensus of village managers and residents	2.90	37.718	0.000	2.99	2.87
Monitoring	Familiarity of villagers with villagers' rights	2.89	37.952	0.000	2.99	2.76
	Informing the villagers about activities	2.91	37.693	0.000	3.00	2.87
	Inform the people about the rules and regulations	2.94	37.697	0.000	3.03	2.89

Regarding the efficiency and effectiveness index, according to the results presented in Table 4, the highest score belongs to the rural managers' efforts for villagers' satisfaction, and the lowest score belongs to providing a vision of the future situation of the village to the villagers. The variable of efficiency in good rural governance reflects that institutions and processes produce outcomes that meet the needs of the community and at the same time make optimal use of the resources available for all. In fact, in good rural governance, the concept of effectiveness and efficiency includes the sustainable use of natural resources and environmental protection. In the villages of the Central District of Karaj, like many villages of Iran, one of the weaknesses in the modern rural management is the lack of a vision for the future of the villagers. Providing a perspective of the physical, economic, social, cultural and environmental situation of the villages in the Central District of Karaj County by rural managers to local residents is rendered as a basis for rural development and providing solutions to solve problems and challenges in the process of agricultural development, livestock, etc. Regarding the efficiency and effectiveness index, it should be noted that due to (strengthening the efficiency and effectiveness of villagers in terms of improving the performance of officials, evaluation of government services by villagers, improving methods using new knowledge, taking into account villagers' satisfaction, improving service quality) Etc.), rural management is on the right track and the development of rural areas is operational.

Therefore, rural management would be on the right track, and the development of rural areas will be operational. Moreover, if the available resources including natural, human, social, cultural, and environmental resources are optimally used in rural areas to meet the needs of the villagers, the level of satisfaction of the villagers will increase and be motivated to contribute in rural development projects. Also, other consolidating measures of rural development management are properly stimulated, which as a result, lead to sustainable development of rural areas. In the

accountability index, the lowest average belongs to responsibility for one's duties. Accountability in the modern rural management implies the process in which rural managers (Islamic Council, rural municipality administers, etc.) are responsible for the outcomes of their decisions and activities. Accountability is a leverage to keeping officials and decision-makers to be responsible for their actions, which is rarely seen in the villages. For this index, the highest average score belongs to establishing a mechanism to convey the needs and demands of the villagers to high-ranking officials. In accordance with the field studies, it was found that the villagers raise their issues with the village managers, and the village managers, as far as possible, discuss the issues with the rural district administrators in order to satisfy the villagers. The rural district administrator is the official who transfers the demands to the relevant organizations Multidimensional relationship, he decisions are transferred from the organization to the rural rural district administrators and from them to the rural managers and then to the villagers.

In the social participation index, the highest average score belongs to peoples' participation in the process of infrastructure reconstruction. Civil participation in rural governance is in fact to wield the power for decision making and the participation of villagers in authority. This implies that rural residents must be involved in decisions which are related to their future actively and influentially. This power is especially in the framework of the goals of sustainable rural development (economic, social, physical and environmental development). In this regard, participation in the process of reconstruction of infrastructure such as roads, asphalt, etc. in the villages of the Central District is relatively desirable. It is also worth mentioning that the attracting people's participation by rural managers has the lowest average score, which can be due to several factors. Among the factors are rural residents' mistrust of previous village managers, and not meeting the villagers' needs, etc. One of the most important challenges of rural municipality administers and rural councils in the Central District is that people mistrust them. In recent years, water shortages and droughts have limited agriculture and reduced rural production, income, and employment. In this regard, rural managers do not have the necessary ability to generate sustainable incomes in rural areas due to lack of financial, political and executive power. This has led to a pessimism and negative attitude among people towards rural managers. In the rule of law index, the highest average score belongs to the awareness of village managers of the rights of the residents. Good rural governance requires legal frameworks that are applied impartially. Conformity to the law requires the awareness of the villagers as well as their respect for law enforcement. Full protection of the rights of all villagers is one of the basic principles of good rural governance, and one of these rights is the rural managers' acknowledgment about the rights of the local residents. In the equity and inclusiveness Index, the highest average score belongs to providing opportunities for women to play a role in miscellaneous activities. In good rural governance, creating suitable opportunities for all villagers, both men and women and each age group to improve their welfare, consists of the efforts to equitably allocate resources and the participation of all people, even the deprived and poor, in expressing their opinions and making decisions. In the villages of the Central District, rural managers have provided suitable conditions for the creation of economic and social activities for women, but they have not performed well aligned with the collective interests. Regarding the accountability index, the highest average score belongs to political participation of villagers. Good rural governance requires that institutions contribute to the benefit of all stakeholders. This is possible when institutions, officials and decision makers are sensitive to and responsible for the demands, expectations and needs of rural individuals and communities. In good rural governance, all villagers are accounted for duties, which is participation of villagers in council elections.

As for the consensus-orientedness index, the item of public consensus on actions and activities has the lowest average. In fact, autonomy point of view is still existed in many rural organizations and rural managers. In this regard, one of the villagers states that public thinking or so-called public intercourse in relation to physical, environmental, social, etc.

culture is not only less seen among the villagers and local managers, but also among People become. Rural managers are also prominent with government agencies, and many rural projects are dismantled in the early stages, both physically and environmentally, by not reaching the public. As for success in collective activities, which has the highest average in this index, rural managers had a relatively good performance in creating group activities among villagers. This is due to the belief in teamwork, creativity and innovation by the members of the Islamic Council of the village and the managers. Finally, regarding the monitoring index, the highest average score belongs to informing the people about the rules and regulations. According to field studies, rural managers had a good performance in presenting laws and regulations to the people by holding several meetings. Furthermore, in order to have the desired level of governance, that is, good rural governance, not only do rural managers need to adopt and adhere each of the indicators, but also it is required to provide functional coordination to achieve good rural governance and systemic perspective. The correlation of indicators should also be examined. In this regard, the results obtained from the establishment of correlation showed that the level of significance in all indicators (effectiveness and efficiency, responsiveness, social participation, rule of law, equity and inclusiveness, accountability, consensus-orientedness, monitoring) is less than 0.05.

Table 5. Correlation between the eight characteristics of good governance among rural managers from villagers' point of view

Indicator		Effectiveness and efficiency	Responsiveness	Social participation	Rule of law	Equity and inclusiveness	Accountability	Consensus oriented	Monitoring
Effectiveness and efficiency	R		0.389	0.367	0.411	0.378	0.390	0.367	0.376
	Sig.		0.000	0.000	0.000	0.000	0.000	0.000	0.000
Responsiveness	R	0.321		0.356	0.411	0.389	0.376	0.412	0.443
	Sig.	0.000		0.000	0.000	0.000	0.000	0.000	0.000
Social participation	R	0.345	0.378		0.412	0.445	0.421	0.413	0.398
	Sig.	0.000	0.000		0.000	0.000	0.000	0.000	0.000
Rule of law	R	0.342	0.377	0.376		0.412	0.398	0.394	0.410
	Sig.	0.000	0.000	0.000		0.000	0.000	0.000	0.000
Equity and inclusiveness	R	0.391	0.400	0.376	0.413		0.392	0.421	0.433
	Sig.	0.000	0.000	0.000	0.000		0.000	0.000	0.000
Accountability	R	0.411	0.432	0.378	0.388	0.391		0.408	0.411
	Sig.	0.000	0.000	0.000	0.000	0.000		0.000	0.000
Consensus oriented	R	0.391	0.389	0.412	0.391	0.409	0.411		0.391
	Sig.	0.000	0.000	0.000	0.000	0.000	0.000		0.000
Monitoring	R	0.398	0.403	0.388	0.391	0.432	0.403	0.421	
	Sig.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

The correlation Characteristics of good governance showed that according to the villagers. In order to achieve the desired governance, there is a need for noticing these Characteristics of good governance. In other words, governance is a management system, and the process of its realization in rural areas depends on a progress in all indicators. So, progress in only one dimension will not be effective.

4.2. Review and ranking of good governance indicators with emphasis on rural management in the villages of the Central District of Karaj

FARAS and FANP models were used to rank the indicators of good governance with an emphasis on rural management in the villages of the Central District of Karaj County. After determining the weights of each of the proposed items, supermatrix columns were presented. The weighted supermatrix is obtained by multiplying the weight of the criteria by the corresponding weight. Following that each of the indicators of good governance is evaluated with emphasis on rural management in the villages using the FARAS model, before the analysis, the abbreviation of each factor was determined (Table 6).

Table 6. Abbreviation for each of the good governance items

Dimension	Abbreviation	Items
Effectiveness and efficiency	C11	Village development
	C12	Provide a vision of the future situation of the village
	C13	Satisfaction of the villagers
	C14	People's participation
	C15	Reducing costs and improvement the quality of services in the village
	C16	Coverage of services in the village level
Responsiveness	C21	Response to complaints of villagers from administrations
	C22	Responsibility for your duties
	C23	Holding public meetings to explain the necessary measures in the village
	C24	Establish a mechanism to convey the needs and demands of the villagers to high-ranking officials
	C25	Efficient response of village managers to the people
	C26	The honest manners of village managers in presenting programs
	C27	Organizing public meetings to inform the villagers
Social participation	C31	Attracting people's participation
	C32	Solidarity between people and officials
	C33	Helping rural people in house building
	C34	Peoples' participation in the process of infrastructure reconstruction
	C35	Villagers' willingness to participate in training courses
	C36	Increasing the participation of villagers in development projects
Rule of law	C41	Fulfill your legal duties
	C42	Nepotism in projects
	C42	Coercive influence of powerful actors in village-related decisions (corruption measurement)
	C43	Villagers' rights
	C44	Village manager's acknowledgment of villager's rights
	C45	Village managers attachment to customs and traditions
	C46	Commitment of village managers to equality under the law
	C47	Village managers knowledge about the rights of the residence
	C48	Resistance of village managers against illegal behaviors of villagers
Equity and inclusiveness	C51	Provide opportunities for women to play a role in miscellaneous activities
	C52	Supporting the poor and vulnerable
	C53	Justice in the equal and inclusive distribution of facilities
	C54	Access to equal opportunities
	C55	Carrying out village projects on time
	C56	Recognition of the common good
Accountability	C61	Accountability in terms of observing norms and laws
	C62	Social participation of villagers
	C63	Political participation of villagers
	C64	Active presence in the political activity of the villagers
	C65	Be aware of the importance of basic natural resources and plant and animal species and reducing environmentally detrimental behavior
	C66	Efforts to improve the environment
Consensus oriented	C71	Public consensus on actions and activities
	C72	Success in collective activities
	C73	Agreement and consensus of village managers and residents
Monitoring	C81	Familiarity of villagers with villagers' rights
	C82	Informing the villagers about activities
	C83	Inform the people about the rules and regulations

Table 7. Integration of experts' opinions

Rule of law			Social participation			Responsiveness			Effectiveness and efficiency			
Γ	β	α	γ	β	A	γ	β	α	γ	β	α	
6.76	9.95	6.89	6.87	4.34	6.74	6.78	8.85	3.45	6.78	5.54	3.33	C11
5.43	5.56	10	10	10	9.95	5.56	5.56	8.85	6.78	6.65	8.33	C12
5.56	6.78	8.82	6.89	9.95	3.35	4.45	4.42	5.44	3.34	5.54	6.64	C13
6.65	5.56	3.45	3.34	6.76	9.95	6.89	6.87	4.34	6.74	6.78	8.85	C14
9.95	5.67	3.45	5.67	5.56	7.76	3.56	3.42	3.34	5.54	7.76	5.56	C15
5.43	5.56	5.56	9.95	3.34	9.95	5.56	5.56	8.85	6.78	6.65	8.33	C16
5.56	6.78	6.82	5.89	7.95	3.35	3.45	3.42	5.44	4.34	3.54	6.44	C21
4.45	7.89	6.65	5.57	6.67	4.45	5.56	5.54	4.45	4.45	3.34	9.95	C22
6.76	9.95	6.89	6.87	4.34	6.74	6.78	8.85	3.45	6.78	5.54	3.45	C23
5.67	5.56	9.34	9.95	7.89	6.65	7.76	6.67	5.56	3.14	3.34	4.45	C24
9.65	5.67	3.45	5.67	5.56	7.76	3.56	3.42	3.34	5.54	7.76	5.56	C25
5.67	5.67	4.45	4.45	4.45	5.56	5.67	3.54	3.56	5.67	4.54	3.34	C26
6.65	5.56	3.45	3.34	6.76	9.95	6.89	6.87	4.34	6.74	6.65	5.67	C27
4.45	7.89	6.65	5.57	6.67	4.45	5.56	5.54	4.45	4.45	3.34	9.95	C31
9.95	5.67	3.45	5.67	5.56	7.76	3.56	3.42	3.34	5.54	7.76	5.56	C32
5.43	5.56	9.95	9.95	9.95	9.95	5.56	5.56	8.85	6.78	6.65	5.43	C33
5.56	6.43	7.33	5.43	5.55	3.31	4.41	3.67	4.32	3.31	4.32	4.44	C34
4.45	7.89	6.65	5.57	6.67	4.45	5.56	5.54	4.45	4.45	3.34	9.95	C35
5.76	7.54	4.54	5.75	5.34	5.32	4.78	7.31	3.31	6.32	5.33	3.31	C36
5.67	5.56	9.34	9.95	7.76	6.65	7.61	6.67	5.56	3.14	3.34	4.45	C41
9.65	5.67	3.45	5.67	5.56	7.76	3.56	3.42	3.34	5.54	7.76	5.56	C42
6.76	9.95	6.89	6.87	4.34	6.74	6.78	8.85	3.45	6.78	5.54	3.45	C42
5.67	5.56	9.34	9.95	7.89	6.65	7.76	6.67	5.56	3.14	3.34	4.45	C43
9.65	5.67	3.45	5.67	5.56	7.76	3.56	3.42	3.34	5.54	7.76	5.56	C44
5.67	5.67	4.45	4.45	4.45	5.56	5.67	3.54	3.56	5.67	4.54	3.34	C45
6.65	5.56	3.45	3.34	6.76	9.95	6.89	6.87	4.34	6.74	6.65	5.67	C46
6.65	5.56	3.45	3.23	6.56	9.77	6.67	6.87	4.34	6.74	6.78	8.85	C47
9.95	5.67	3.45	5.65	5.56	7.76	3.56	3.34	3.34	5.54	7.67	5.56	C48
5.56	6.78	6.82	5.89	7.95	3.35	3.45	3.42	5.44	4.34	3.54	6.44	C51
4.45	7.89	6.65	5.57	6.67	4.45	5.56	5.54	4.45	4.45	3.34	9.95	C52
6.76	9.95	6.89	6.87	4.34	6.74	6.78	8.85	3.45	6.78	5.54	3.45	C53
5.67	5.56	9.34	9.95	7.89	6.65	7.76	6.67	5.56	3.14	3.34	4.45	C54
6.65	5.56	3.45	3.34	6.76	9.95	6.89	6.87	4.34	6.74	6.65	5.67	C55
6.76	9.95	6.89	6.87	4.34	6.74	6.78	8.67	3.41	6.56	5.32	3.33	C56
5.43	5.56	10	10	10	9.95	5.45	5.54	8.75	6.78	6.65	8.33	C61
5.56	6.78	8.82	6.89	9.95	3.31	4.42	4.42	5.44	3.34	5.54	6.64	C62
6.65	5.56	3.45	3.23	6.56	9.77	6.67	6.87	4.34	6.74	6.78	8.85	C63
9.95	5.67	3.45	5.65	5.56	7.76	3.56	3.34	3.34	5.54	7.67	5.56	C64
6.65	5.56	3.45	3.34	6.76	9.95	6.89	6.87	4.34	6.74	6.78	8.85	C65
9.95	5.67	3.45	5.67	5.56	7.76	3.56	3.42	3.34	5.54	7.76	5.56	C66
5.43	5.56	5.56	9.95	3.34	9.95	5.56	5.56	8.85	6.78	6.65	8.33	C71
6.65	5.56	3.45	3.34	6.76	9.95	6.89	6.87	4.34	6.74	6.78	8.85	C72
6.87	4.34	6.74	6.65	5.56	3.45	3.23	6.65	5.56	4.44	3.32	3.32	C73
3.34	3.34	5.54	9.95	5.67	3.45	5.65	9.95	5.67	3.65	4.89	4.44	C81
5.56	8.85	6.78	5.43	5.56	5.56	9.78	5.43	5.56	4.32	5.54	5.53	C82
3.42	5.44	4.34	5.56	6.78	6.82	5.77	5.56	6.78	5.65	4.98	4.44	C83

Table 8. Integration of experts' opinions

Monitoring			Consensus oriented			Accountability			Equity and inclusiveness			
Γ	β	α	γ	β	A	Γ	B	α	γ	β	α	
4.42	5.44	3.34	5.56	6.78	8.82	6.89	5.56	6.78	3.55	3.31	3.45	C11
6.87	4.34	6.74	6.65	5.56	3.45	3.23	6.65	5.56	4.44	3.32	3.32	C12
3.34	3.34	5.54	9.95	5.67	3.45	5.65	9.95	5.67	3.65	4.89	4.44	C13
5.56	8.85	6.78	5.43	5.56	5.56	9.78	5.43	5.56	4.32	5.54	5.53	C14
3.42	5.44	4.34	5.56	6.78	6.82	5.77	5.56	6.78	5.65	4.98	4.44	C15
5.54	4.45	4.45	4.45	7.89	6.65	5.57	4.45	7.89	4.54	4.71	4.31	C16
4.42	5.44	3.34	6.76	9.95	6.89	6.87	6.76	9.95	4.21	4.43	6.54	C21
6.87	4.34	6.74	5.56	6.78	8.82	6.89	5.56	6.78	4.89	4.78	4.45	C22
3.34	3.34	5.54	6.65	5.56	3.45	3.23	6.65	5.56	4.43	4.55	7.43	C23
5.56	9.95	8	7.67	6.66	3.67	8	9	9.5	10	10	10	C24
6.76	9.95	6.89	6.87	4.34	6.74	6.78	8.67	3.41	6.56	5.32	3.33	C25
5.43	5.56	10	10	10	9.95	5.45	5.54	8.75	6.78	6.65	8.33	C26
5.56	6.78	8.82	6.89	9.95	3.31	4.42	4.42	5.44	3.34	5.54	6.64	C27
6.65	5.56	3.45	3.23	6.56	9.77	6.67	6.87	4.34	6.74	6.78	8.85	C31
9.95	5.67	3.45	5.65	5.56	7.76	3.56	3.34	3.34	5.54	7.67	5.56	C32
5.43	5.56	5.56	9.78	3.34	9.95	5.56	5.56	8.85	6.78	6.65	8.33	C33
5.56	6.78	6.82	5.77	7.95	3.35	3.45	3.42	5.44	4.34	3.54	6.44	C34
4.45	7.89	6.65	5.57	6.67	4.45	5.56	5.54	4.45	4.45	3.34	9.95	C35
6.76	9.95	6.89	6.87	4.34	6.74	6.78	8.73	3.32	6.66	5.43	3.45	C36
5.67	5.56	9.34	9.95	7.76	6.65	7.61	6.67	5.56	3.14	3.34	4.45	C41
9.65	5.67	3.45	5.67	5.56	7.76	3.56	3.42	3.34	5.54	7.76	5.56	C42
5.67	5.67	4.45	4.45	4.45	5.56	5.67	3.54	3.56	5.67	4.54	3.34	C42
5.56	9.95	8	7.67	6.66	3.67	8	9	9.5	10	10	10	C43
6.76	9.95	6.89	6.87	4.34	6.74	6.78	8.67	3.41	6.56	5.32	3.33	C44
5.43	5.56	10	10	10	9.95	5.45	5.54	8.75	6.78	6.65	8.33	C45
5.56	6.78	8.82	6.89	9.95	3.31	4.42	4.42	5.44	3.34	5.54	6.64	C46
6.65	5.56	3.45	3.23	6.56	9.77	6.67	6.87	4.34	6.74	6.78	8.85	C47
9.95	5.67	3.45	5.65	5.56	7.76	3.56	3.34	3.34	5.54	7.67	5.56	C48
5.43	5.56	5.56	9.78	3.34	9.95	5.56	5.56	8.85	6.78	6.65	8.33	C51
5.56	6.78	6.82	5.77	7.95	3.35	3.45	3.42	5.44	4.34	3.54	6.44	C52
4.45	7.89	6.65	5.57	6.67	4.45	5.56	5.54	4.45	4.45	3.34	9.95	C53
6.76	9.95	6.89	6.87	4.34	6.74	6.78	8.73	3.32	6.66	5.43	3.45	C54
9.95	5.67	3.45	5.67	5.56	7.76	3.56	3.42	3.34	5.54	7.76	5.56	C55
5.43	5.56	5.56	9.95	3.34	9.95	5.56	5.56	8.85	6.78	6.65	8.33	C56
5.56	6.78	6.82	5.89	7.95	3.35	3.45	3.42	5.44	4.34	3.54	6.44	C61
4.45	7.89	6.65	5.57	6.67	4.45	5.56	5.54	4.45	4.45	3.34	9.95	C62
6.76	9.95	6.89	6.87	4.34	6.74	6.78	8.85	3.45	6.78	5.54	3.45	C63
5.67	5.56	9.34	9.95	7.89	6.65	7.76	6.67	5.56	3.14	3.34	4.45	C64
6.65	5.56	3.45	3.34	6.76	9.95	6.89	6.87	4.34	6.74	6.65	5.67	C65
4.45	7.89	6.65	5.57	6.67	4.45	5.56	5.54	4.45	4.45	3.34	9.95	C66
9.95	5.67	3.45	5.67	5.56	7.76	3.56	3.42	3.34	5.54	7.76	5.56	C71
5.43	5.56	9.95	9.95	9.95	9.95	5.56	5.56	8.85	6.78	6.65	5.43	C72
9.95	5.67	3.45	5.67	5.56	7.76	3.56	3.42	3.34	5.54	7.76	5.56	C73
5.43	5.56	5.56	9.95	3.34	9.95	5.56	5.56	8.85	6.78	6.65	8.33	C81
5.56	6.78	6.82	5.89	7.95	3.35	3.45	3.42	5.44	4.34	3.54	6.44	C82
4.45	7.89	6.65	5.57	6.67	4.45	5.56	5.54	4.45	4.45	3.34	9.95	C83

After normalizing the initial values, the value of the optimization function and the degree of desirability of each option are determined.

Table 9. The optimal function and degree of desirability

Equity and inclusiveness			Rule of law			Social participation			Responsiveness			Effectiveness and efficiency			
Γ	β	α	Γ	β	α	γ	B	A	γ	β	α	γ	B	α	
0.220	0.213	0.198	0.210	0.221	0.210	0.254	0.231	0.254	0.221	0.221	0.211	0.241	0.221	0.234	⊗S
0.210			0.221			0.245			0.213			0.231			S_j
0.423			0.442			0.476			0.434			0.452			K_j

Table 10. The optimal function and degree of desirability

Monitoring			Consensus oriented			Accountability			
Γ	B	α	Γ	B	A	γ	β	α	
0.218	0.198	0.210	0.213	0.223	0.210	0.208	0.210	0.210	⊗S
0.214			0.214			0.221			S_j
0.412			0.437			0.431			K_j

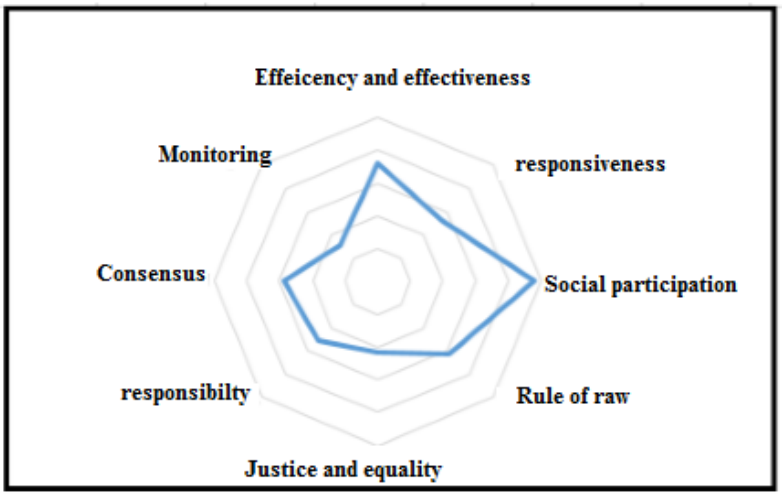


Figure 3. Final weight of indicators for good rural governance

As illustrated in Figure 3 and Tables 9 and 10, the indicators are ranked from highest to lowest according to their weights as follows: social participation (0.476), efficiency and effectiveness (0.452), rule of law (0.442), consensus-orientedness (0.437), accountability (0.434), accountability (0.431), equity and inclusiveness (0.423), and monitoring (0.412).

Based on these findings, social participation is crucial in achieving optimal rural governance good rural governance in the Central District of Karaj County. Participation might take place directly or indirectly. Also, the correct and real participation of the villagers in the governance process could be accounted for a democratic governance, which is established on social justice, environmental protection and proper governance. the relationship between governance and social participation is a pattern for participatory management.

5. Discussion and conclusion

Today, the approach shift in management from autonomous management to good governance with civil participation is considered as one of the managerial developments at different scales. In this regard, studies confirm that in a bottom-up development approach, councils and villages are of the most important parts of the rural

development programs. Therefore, to achieve optimal rural governance, a proper local management with a participatory approach should be considered. Evidently, good rural governance underscores the participation and expansion of grassroots movements, poverty reduction, job creation and sustainable welfare, and environmental protection. All of these can occur when the significant relationship between local village management and good governance are aligned. As a result, it is theoretically necessary to implement the principles of good governance in rural areas for the formation of sustainable rural management, and consequently, increasing the satisfaction of villagers and the success of rural managers. Accordingly, an attempt was made to evaluate the performance of rural management by emphasizing on the indicators of good rural governance in the villages of the villages in Central District of Karaj County. For this purpose, eight indicators were extracted from the literature pertaining to optimal governance.

The results showed that the performance of rural management with emphasis on good governance indicators in these villages is relatively favorable (medium downward). In other words, the results indicate that the status of governance indicators in the studied villages is lower than average, and the indicators need to be improves among the local managers.

Moreover, the results of the correlation between the indicators of good rural governance showed that the management system is the desired and subject to development in all indicators of good rural governance from the point of view of the villagers. The results of ranking the indicators of good governance of the villages using the FARAS model showed that the social participation index has the highest rank from the perspective of experts. The results is consistent with with studies Eftekhari et al. (2012), Nowruzi and Ebrahimi (2018), Khoshfar et al. (2019) in terms of the status of weak goverance indicators of the region. In a final conclusion, it can be said that despite extensive political, economic, social, and technological developments in the villages, and consequently even increasing the level of public awareness and knowledge, the overall situation of rural management in the studied villages has not changed much and it follows the same style and context of the past. The main part of this inertia is due to the centralized structure of the country, ergo rural management. Therefore, the existence and institutionalization of rural management issues and problems make it difficult to implement the principles of good rural governance. In this structure, known as the top-down structure, the social, economic, environmental, and physical capabilities of a particular region is not properly recognized and the interests of stakeholders in these villages are not properly considered. The effectiveness and efficiency of such policies and programs certainly will be minimized. The strategy of the villages in the Central District of Karaj County is the same strategy of the rural government in which the rural managers consider themselves as the guardians of the villagers and implement their policies and programs without the participation with the stakeholders. The result of this type of management is the elimination of stakeholders in the decision-making process, which has serious consequences for the villages. In other words, instead of building and developing the villages by their residents who are the main and foremost beneficiaries and creating a sense of belonging to the village, they are considered as dispersed population who are doomed to live in their place of residence.

To this end, in order to strengthen the indicators of good rural governance and to improve rural management, the following solutions should be proposed:

- It is necessary to strengthen and expand education and arrange conditions to bolster the spirit of self-reliance and self-confidence in rural communities;
- Local management can be improved by strengthening local resources, social capital, mobilizing the endogenous capacities of rural areas in the Central District of Karaj County, social participation, equity and inclusiveness, and consensus-orientedness;
- Activities should be taken through interaction of non-governmental organizations, governmental and public organizations and the private sector, removing existing obstacles, and financial and executive constraints for modern rural management in the villages of the Central District;
- A mechanism should be devised to achieve new rural management using the indicators of good governance, interaction and active discourse

between villagers and those in charge of rural development;
- Constant asking for opinions from villagers by rural managers in different stages of executive programs (before, during and after the implementation of programs);
- More cooperative and compassionate activities of rural managers in rural areas of the Central District of Karaj County;
- Impelling rural managers to support villagers in the Central District of Karaj Count.

Acknowledgments:
This study is an extract of Master's thesis of the first author in Department of Human Geography, Faculty of Geographical Sciences, Kharazmi University, Tehran.

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Journal of Research and Rural Planning
Volume 11, No. 1, Winter 2022, Serial No. 36, Pp. 59-79
eISSN: 2783-2007 **ISSN: 2783-2791**
http://jrrp.um.ac.ir

Original Article

واکاوی عملکرد مدیریت نوین روستایی مبتنی بر رویکرد حکمروایی خوب (مورد مطالعه: روستاهای بخش مرکزی شهرستان کرج)

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چکیده مبسوط

۱. مقدمه

یکی از اهداف مدیریت روستایی در شرایط کنونی، انطباق آن با اصول و معیارهای حکمروایی خوب می‌باشد، زیرا روستاییانی که از مدیریت محلی رضایت داشته باشند با اطمینان بیشتری وظایف خود را انجام داده و مشارکت می‌کنند. بر این اساس امروزه در فرایند مدیریت روستایی انتظار بر این است که اصول حکمروایی خوب در محیط‌های روستایی پیاده شده و مدیران روستایی در تلاش برای افزایش رضایتمندی روستاییان در راستای قواعد حکمروایی خوب باشند. بنابراین در مطالعات امروزه مدیریت روستایی در روستاهای بخش مرکزی شهرستان کرج و ارزیابی عملکرد مدیران توجه به هم راستای شیوه‌های مدیریت آنها با معیارهای حکمروایی خوب می‌تواند به عنوان یک اصل باشد که در بلند مدت زمینه‌های رضایتمندی روستاییان فراهم خواهد ساخت. در این راستا، این پژوهش در پی آن است که به بررسی عملکرد مدیریت نوین روستایی را با تاکید بر حکمروایی خوب در روستاهای بخش مرکزی پرداخته شود. بنابراین در راستای هدف، پژوهش حاضر به دنبال بررسی و کنکاش سؤال ذیل می‌باشد: عملکرد مدیریت نوین روستایی با تاکید بر حکمروایی خوب روستایی در روستاهای بخش مرکزی شهرستان کرج در چه وضعیتی قرار دارد؟

۲. مبانی نظری تحقیق

مدیریت نوین روستایی به معنای، علم تلفیق و تنظیم عوامل مختلف طبیعی، انسانی، اقتصادی و... در جامعه روستایی، است و یکی از مهمترین اهداف آن دستیابی سکونتگاه‌های روستایی به توسعه و به دنبال آن، توسعه پایدار روستایی است. بر اساس آنچه مطرح گردید، مجموعه مدیریت روستاها و در آن میان، دهیارها و شوراها به عنوان نماد مدیریت نوین محلی، باید بتوانند روستا را به سازمانی حرفه‌ای تبدیل کنند. راهبردهای حکمروایی خوب شامل راهبرد توسعه نهادی، توانمندسازی و ظرفیت‌سازی است که رویکرد توسعه نهادی تاکید بر دانش بومی، کنش‌های جمعی و فرایندهای نهادسازی دارد و توجه هر چه بیشتر به تمامی وجوه توسعه ضمن توجه به جنبه‌های مشارکتی و تاکید بر فنون برنامه‌ریزی شده مبتنی بر کنش‌ها و تصمیمات جمعی را الزامی و ضروری می‌داند. تمرکز بر روش‌های توانمندسازی به منظور افزایش تمایل جامعه روستایی برای مشارکت در فرایند توسعه پایدار است.

۳. روش تحقیق

نوع تحقیق به لحاظ هدف کاربردی و از حیث ماهیت توصیفی ـ تحلیلی است. پژوهش حاضر با توجه به هدف اصلی پژوهش و سئوال‌های مطرح شده، در پی واکاوی عملکرد مدیریت نوین روستایی مبتنی بر شاخص‌های حکمروایی خوب (مورد: بخش مرکزی شهرستان کرج) است که نتایج برگرفته از این پژوهش می‌تواند برای برنامه‌ریزان و تصمیم‌گیرندگان در زمینه‌ی مدیریت روستایی و حکمروایی خوب روستایی بیانجامد، بنابراین پژوهش حاضر، کاربردی است. روش و ابزار اطلاعات مبتنی بر مطالعات کتابخانه‌ای، اسنادی و میدانی است. مطالعات کتابخانه‌ای جهت به دست آوردن مطالب از کتب، مقالات، رساله‌ها و آرشیو سازمان‌های داخلی و خارجی بهره برده و همچنین بررسی‌های اینترنتی مطالب لازم گردآوری می‌شود. در نهایت با استفاده از پرسشنامه و بررسی‌های میدانی از روستاهای مورد مطالعه و مصاحبه با افراد متخصص، اطلاعات مورد نظر گردآوری شد. در تحقیق حاضر جامعه آماری

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دکتر حسن افراخته
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شامل دو بخش است. بخش اول عبارت از ساکنین روستاها بخش مرکزی در سه دهستان (گرمدره، محمدآباد، کمال آباد) است. جامعه آماری در بخش کمی طبق سرشماری سال ۱۳۹۵، کل خانوار روستاهای مورد مطالعه ۳۲۱۳ نفر می‌باشند، که بر اساس نمونه‌گیری تصادفی و استفاده از فرمول کوکران اصلاح شده، تعداد ۱۴۵ نفر به عنوان (جامعه نمونه) در روستاها انتخاب گردیده شد. در بخش دوم نیز، جامعه آماری، متخصصان مرتبط با موضوع پژوهش حاضر است، که بر اساس نمونه‌گیری هدفمند تعداد ۲۰ نفر به عنوان جامعه نمونه انتخاب گردیده شد. همچنین قابل ذکر است به منظور تجزیه و تحلیل اطلاعات از نرم‌افزار SPSS، و مدل FARAS استفاده گردیده شد.

۴. یافته‌های تحقیق

یافته‌های تحقیق نشان داد که عملکرد مدیریت روستایی براساس آزمون تی‌تک نمونه‌ای در شاخص‌های (کارایی و اثربخشی با مقدار میانگین ۳/۰۰، پاسخگویی با مقدار میانگین ۳/۰۳، مشارکت اجتماعی با مقدار میانگین ۳/۱۴، حاکمیت قانون با مقدار میانگین ۳/۰۴، عدالت و برابری با مقدار میاتگین ۳/۰۱، مسئولیت‌پذیری با مقدار میانگین ۳/۰۰، اجماع‌پذیری با مقدار میانگین ۳/۰۳، نظارت با مقدار میانگین ۳/۰۲)، با مقدار میانگین‌های به دست آمده بالاتر از حد متوسط عدد (۳)، گویای مقدار متوسط رو به پایین عملکرد مدیریت روستایی در شاخص‌های حکمروایی خوب در روستاهای بخش مرکزی شهرستان کرج است. نتایج همبستگی بین شاخص‌های حکمروایی خوب روستایی نشان داد که از دیدگاه روستاییان تحقق نظام مدیریتی مطلوب و مناسب در گرو پیشرفت مطلوب همه شاخص‌های حکمروایی خوب روستایی است. همچنین نتایج رتبه‌بندی شاخص‌های حکمروایی خوب با استفاده از مدل FARAS نشان داد، شاخص مشارکت اجتماعی بالاترین رتبه را از دیدگاه متخصصان به خود اختصاص داده است. و در نهایت یافته‌های پژوهش نشان داد که شاخص‌های (مشارکت اجتماعی با وزن به دست آمده ۰/۴۷۶، کارایی و اثربخشی با وزن ۰/۴۵۲، حاکمیت قانون با وزن ۰/۴۴۲، جماع پذیری با وزن به دست آمده ۰/۴۳۷، پاسخگویی با وزن ۰/۴۳۴، مسئولیت‌پذیری با وزن ۰/۴۳۱، عدالت و برابری با وزن ۰/۴۲۳، نظارت با وزن ۰/۴۱۲)، بالاترین و پایین‌ترین رتبه‌ها را به خود اختصاص داده‌اند.

۵. بحث و نتیجه‌گیری

میزان عملکرد مدیریت روستایی با تاکید بر شاخص‌های حکمروایی خوب روستایی در روستاهای بخش مرکزی شهرستان کرج بررسی شود. برای این منظور از شاخص‌های ۸ گانه مستخرج از ادبیات نظری در رابطه با حکمروایی مطلوب استفاده گردیده شد. نتایج نشان داد، میزان عملکرد مدیریت روستایی با تاکید بر شاخص‌های حکمروایی خوب در روستاهای بخش مرکزی کرج نسبتا مطلوب (متوسط رو به پایین) است. به عبارت دیگر نتایج نشان داد که وضعیت شاخص‌های حکمروایی در روستاهای مورد مطالعه پایین‌تر از حد متوسط بوده و برای دستیابی به حکمروایی خوب در محیط‌های روستایی مورد نظر نیازمند تقویت شاخص‌ها و گویه‌های مرتبط با آن در بین مدیران محلی روستا است. اگر در چند گویه به دلیل ضرورت‌های انجام وظایف اداری مدیران روستایی و ارتباط محلی مدیران با مردم میانگین‌ها تقریبا متوسط رو به بالا است. همچنین نتایج رتبه‌بندی شاخص‌های حکمروایی خوب روستای با استفاده از مدل FARAS نشان داد، شاخص مشارکت اجتماعی بالاترین رتبه را از دیدگاه متخصصان به خود اختصاص داده است.

کلیدواژه‌ها: مدیریت نوین، حکمروایی خوب، سکونتگاه‌های روستایی، شهرستان کرج.

تشکر و قدردانی

پژوهش حاضر برگرفته از پایان‌نامه کارشناسی ارشد میلاد محمدی، گروه جغرافیای انسانی، دانشکده علوم جغرافیایی دانشگاه خوارزمی، تهران است.

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How to cite this article:
Mohammadi, M., Afrakhteh, H. & Javan, F. (2022). Performance evaluation of the modern rural management based on good governance approach (Case study: Villages in Central District of Karaj County). *Journal of Research & Rural Planning*, *11*(1), 59-79.
http://dx.doi.org/10.22067/jrrp.v11i1.2108-1021

Date:
Received: 06-08-2021
Revised: 27-09-2021
Accepted: 01-11- 2021
Available Online: 01-12-2021

Journal of Research and Rural Planning
Volume 11, No. 1, Winter 2022, Serial No. 36, Pp. 81-102
eISSN: 2783-2007 **ISSN: 2783-2791**
http://jrrp.um.ac.ir

Original Article

Assessing the Effective Drivers of Balanced Regional Development based on Local Competitiveness (Case Study: Rural Areas of Ardabil County, Iran)

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Abstract

Purpose- Achieving balanced development and spatial justice with much emphasis on competitive advantages has been constantly the main concern among planners and policy-makers to reduce inefficiency, inequality, polarization, and fragmentation in the spatial structure of different countries. Fulfilling such goals demands the knowledge of local potentials and the way to exploit them in a correct manner. Therefore, this study aimed to identify competitive advantages and levels of living in the study area, and then assess the effective drivers of balanced regional development (BRD) based on local competitiveness using futures studies.

Design/methodology/approach- An analytical-exploratory applied method was used to reflect on the rural areas and the researchers working on regional planning in Ardabil Township, Iran, were the statistical population. The sample size was thus determined to be 30 individuals using the snowball sampling method (via theoretical saturation). The data were also collected by a Delphi questionnaire, library method, documents, statistics, and initiatives. To analyze the data, Micmac software, the Geographic Information System (GIS software), Microsoft EXCEL, and the Morris method were employed.

Finding- Analyzing the research findings associated with the variables as determinants with direct influence showed that among 23 variables in this study, 13 cases were within direct influence-dependence scope or condition but only 12 variables prioritized respectively as policy stability, executive regulations/procedures, price stability and predictability and intervention logic, monopoly prevention, unfair concessions or rents and competitions, removal of administrative barriers to business through delegation approach, effective deterrence of criminal laws and prosecutions in the judicial system, innovation/initiative flow, prevention of biased perceptions of laws by relevant stakeholders, distribution system and marketing status, effective market demand, administrative procedures and business information transparency, willingness to buy foreign goods, as well as auditing and taxing regulations/procedures as determinants had the highest influential power, that is, they constituted the drivers of BRD.

Research limitations/implications- Among the most important limitations of the present study was no access to the statistics of all cases and the unwillingness of a number of executive organizations and bodies in Ardabil Township to cooperate. Furthermore, the pivot strategies in this research were established based on local development and BRD strategies.

Practical implications- To meet the objectives of BRD planning in the rural areas of Ardabil Township, the key role of the 12 main variables mentioned here should be taken into account. Such variables have high influence and low dependence on BRD improvements in the study area and they are of top priority in planning for BRD based on local competitiveness in the rural areas of Ardabil County, Iran.

Originality/Value- Little research has thus far assessed the effective drivers of BRD based on local competitiveness using futures studies. Amongst the advantages of the present study, the comprehensiveness and impediment of its research criteria stand out.

Keywords- Balanced development, Competitive advantages, Futures study, Transactional analysis, Ardabil, Iran

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How to cite this article:
Mohammadi, A., Abbasi, M.J. & Noori, A. (2022). Assessing the effective drivers of balanced regional development based on local competitiveness (Case study: Rural areas of Ardabil County, Iran). *Journal of Research & Rural Planning, 11*(1), 81-102.
http://dx.doi.org/10.22067/jrrp.v11i1.2101-1002

Date:
Received: 10-03-2021
Revised: 27-04-2021
Accepted: 04-06- 2021
Available Online: 01-10-2021

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1. Introduction

Geographical inequalities in terms of employment rates, levels of income, as well as facilities and services have led to unplanned migration flow, particularly from rural areas to development hubs (namely, urban areas), changes in social structures, widening gaps in less-developed regions, unwillingness to exploit the potentials of these areas, etc. (Fal-Soleiman & Hajipour, 2014). Actually, imbalance in development flow in different regions causes gaps and intensifies regional disparities, as a barrier to development. Since the 1960s, most countries, using regional studies/planning, have been to achieve balanced development, reduce development gaps between regions, and mitigate inequalities at the global, national, regional, and local scales (Barghi et al., 2017).

Current regional development plans in Iran have still failed to minimize socioeconomic and spatial inequalities between different regions (Ladi, 2017), and even the effective drivers of development have not been identified in such plans due to the diverse conditions of geographical areas in this country (Sharifzadegan et al., 2016). The review of the theoretical literature related to the research topic shows that regional disparities in all areas, especially in rural ones, have been accompanied by numerous challenges at odds with development goals and conditions, particularly sustainable development, in rural areas. On the other hand, the experience of implementing regional development strategies in many countries has resulted in strengthening competitiveness and ultimately reducing regional inequalities to achieve balanced development.

The initial reviews in this study in Ardabil Township, Iran, reveals extensive limitations among residents and settlement networks in terms of access to social welfare services and facilities along with inadequate participation in decision-making processes in various forms at the macro and micro levels due to the nature of sectoral planning and reflects the imbalance in the spatial structure of urban and rural settlements. The city of Ardabil as the capital of Ardabil Province, in northwestern Iran, and Ardabil Township accordingly plays the main role in creating an imbalance in the settlement system in this region. The centralization of facilities and services in all fields has also made the city host a major part of the population living in urban areas in Ardabil province. This is while other residential areas in this region are facing shortages and losing a major part of their natural and ecological resources due to natural hazards or human factors. Therefore, adopting proper strategies and solutions based on existing potentials and advantages in this region, especially in agriculture, industry, tourism, entrepreneurship, etc. can minimize the problems challenging rural communities located in the study area with a view to establishing balanced regional development (BRD). Thus, the main objective of this study was to shed light on the status of the rural areas in this region in terms of competitive advantages, levels of living, and balanced local development, and assess the effective drivers of BRD in Ardabil Township based on local competitiveness. Accordingly, the research questions addressed here are:

- What is the status of the study areas based on the components of effective RBD?
- What are the key factors and drivers of BRD in Ardabil Township, Iran, and what is the influence of each one on RBD in the study area?

2. Research Theoretical Literature

Spatial-temporal theories have evolved in their timeline from a structural view to flow, network, and performance relationships and the factors affecting physical proximity have been replaced by organizational ones. In other words, today's spatial planning models represent both the formation and development of regions. The first type is the relationships between cities with their influence known as regionalism, which can be associated with models such as central location and hierarchical ones based on service-economy dependence on centers (Schwanen et al., 2004). The second type considers scale-free and network relationships between regions in correspondence with novel regionalism. These processes move away from service dependence and mostly center on regional competitiveness, long-range economic relationships, flows of information, complementary relationships, horizontal synergy (i.e, creating scale-based advantages and positively external network effects through cooperation and partnership) and vertical synergy (i.e., surplus value due to aggregation or specialization effects) in different regions (Meijers et al., 2010; Reggiani & Rietveld, 2010). The common feature of these

theories is regional mobility, reduced spatial inequalities, minimized spatial contrasts, and balanced development, but in many Third-World countries, the efficiency and effectiveness of flow-based performance spaces have been marginalized due to predominating political divisions. In other words, competitiveness in novel regionalism reflects topics such as regions conjoined in terms of economic performance, the environment, and functional networks with dynamic development, adaptable to changes. In this view, areas are not defined based on geographical concepts rather as socially formed ones, whose effective intellectual traditions include regional competitiveness, flow space, regional governance, institutionalism, networking, clusters, sustainability, and survival (Neumann, 2003; Jessop, 2003).

After the 1970s and following the changes in the attitudes to government and development, planning and policy-making oriented from national and international levels toward regional and local ones. On the one hand, with regard to the importance of regional and local values and the changes in the functions of the government in regional development, institutionalization and regional competitiveness in the form of good governance (Anabestani & Soleimani, 2019) were emphasized, and on the other hand, widespread criticism of comprehensive plans eventually lead to the emergence of a new approach to planning called strategic planning in regional development planning (Vosoughi-Lang et al., 2017), as one of the new efficient achievements to reach regional development and balance through enhancing the capacities and potentials of regions to exploit their talents and capabilities and emphasizing comprehensive participation, whose fulfillment can increase efficiency and competitiveness and reduce centralization (Yasoori & Sojoudi, 2017). According to the Theory of Social Justice by David Harvey (2008) and the concept of social justice from a geographical perspective, equitable distribution at the land and regional scales is not necessarily synonymous with fair distribution at other scales or between individuals, and it merely explains the nature of social justice in three general criteria of need, public interest, and deserving.

Since 1990, Porter's concept of regional competitiveness has attracted much attention and it is now increasingly used as a political tool for regional development (Kitson et al., 2004). According to Asheim et al. (2006), competitive advantages in the global economy have become localized, originating from skilled labor, knowledge, institutions, competitors, relevant businesses, and advanced users. In this sense, the review of spatial planning development to increase spatial competitiveness and its success in attracting floating capital and human resources has turned into the main concern among many researchers working on regional and urban sciences and the relationship between competitiveness and regional territory (Porter, 1990). Porter's theory of competitive advantages at geographically local, regional, and national scales also attracted the attention of regional decision-makers and economic geographers. Assuming and highlighting some sort of competition between regions, this approach is to attract capital and human resources affecting development (Anabestani et al., 2017) and deal with regional development from a new perspective. With regard to the last few decades from the introduction of regional planning into theoretical and empirical literature in Iran, achieving balanced development with emphasis on competitive advantages, decentralization of economic activities, as well as resources and population has been the main concern among planners and policy-makers in this country (Dadashpour & Rostami, 2011).

2.1. Research Background

Given the above-mentioned issues and the research objectives, it can be acknowledged that the concept of balanced development was originally taken from the criticisms of traditional development models in the late 1980s, defining growth as the increased consumption of assets and services. According to Redding and Nobles (2004), the geography of access to markets and supply resources are significantly correlated with changes in per capita income in different countries. As stated by Benini and Syzoski (2007), examining regional inequalities and economic growth in Russia, regional disparities rising from the beginning of the 1990s were the consequences of structural reorganization processes and territorial resource allocation in this country. Accordingly, the most important domestic and international sources as cases studies in this field could be delineated as follows.

Pourkhalesi and Nourian (2017) identified competitive sectors in Fars Province, Iran, and found that only three out of 14 general economic sectors in this region had advantages including

agriculture, hunting/forestry/fishing, health and social work, public administration, and municipal services, respectively. Rahnama et al. (2018) identified and analyzed the drivers of regional development in Alborz Province, Iran, and reflected on the issues of water resources and drought, the destruction of orchards due to the uncontrolled expansion of constructions, industrial production, and environmental pollution as well as depreciated factories as the disaster scenarios and the capabilities of large-scale and strategic industries and tourism in this province as the most intermediary ones.

Moreover, Shamanyan (2019), in his research presenting a model of balanced development of rural areas based on an entrepreneurial approach measured functional balance and currents in Damghan region, Iran, and reported that the development in the study area was not integrated and homogeneous. They introduced the interconnected multichannel development model as a desirable one. Eftekhari et al. (2019), analyzing the factors affecting the design of spatial development scenarios based on rural areas in Zone 3 of Land-Use Planning, believed that the futures of rural development in this region based on the extracted scenarios had laid much emphasis on economic and income diversity in rural areas. Imani (2016), using futures study, investigated BRD in Ardabil Province, Iran, presented scenarios for its development, and then suggested a long distance between the provincial status and development goals in the upstream documents as well as the realization of balanced development in this region.

Živanović & Gatarić (2017) focused on reaching BRD in Serbia, using spatial and functional analyses of nodes, similarly introduced the relationship between the node centers of the region as one of the key solutions to overcome non-balanced development and reflected on chances to achieve BRD through the functional impact of the node centers across the given process. Correspondingly, Yushkova et al. (2019) explored balanced development and the role of small and medium-sized businesses on the balanced development of agriculture in Russia, considered some solutions to the problems facing such businesses in rural areas, and advocated some strategies to enhance their efficiency.

Based on the review of research background as mentioned briefly above, most previous studies had placed maximum focus on the identification of the factors and strategies for development and competitiveness or had merely introduced the drivers of BRD and competitive activities, but in this study, in addition to the introduction of such competitive activities and effective drivers, the special features of geographical spaces at the local scale within rural areas were taken into account. Therefore, the present study was to assess the drivers of BRD based on local competitiveness using futures studies through identifying and assessing competitive advantages and levels of living in terms of facilities and talents and the integration of BRD with further studies to deal with new problems in rural areas. In addition, one of the positive points in this study was the inclusiveness and exclusiveness of the research criteria.

3. Research Methodology

3.1 Geographical Scope of the Research

This study was conducted in Ardabil Township, in northwestern Iran, comprising the cities of Ardabil and Heer. The rural areas in Ardabil Township were also in three districts of Samrin, Markazi, and Heer in 10 villages, named Dojagh, Gharbi, Arshagh Sharghi, Balghloo, Sardabeh, Sharghi, Kalkhoran, and Fooladloy Jonoubi and Shomali. Ardabil Township accordingly has 179 villages with 20,889 households and a rural population of 79,210 people (Table 1).

Table 1. The position of national divisions in the study area

County	Division	Villages
Ardabil	Samrin	Dojagh
		Gharbi
	Markazi	Arshagh Sharghi
		Balghloo
		Sardabeh
		Sharghi
		Kalkhoran
	Heer	Fooladloy Jonoubi
		Fooladloy Shomali
		Heer

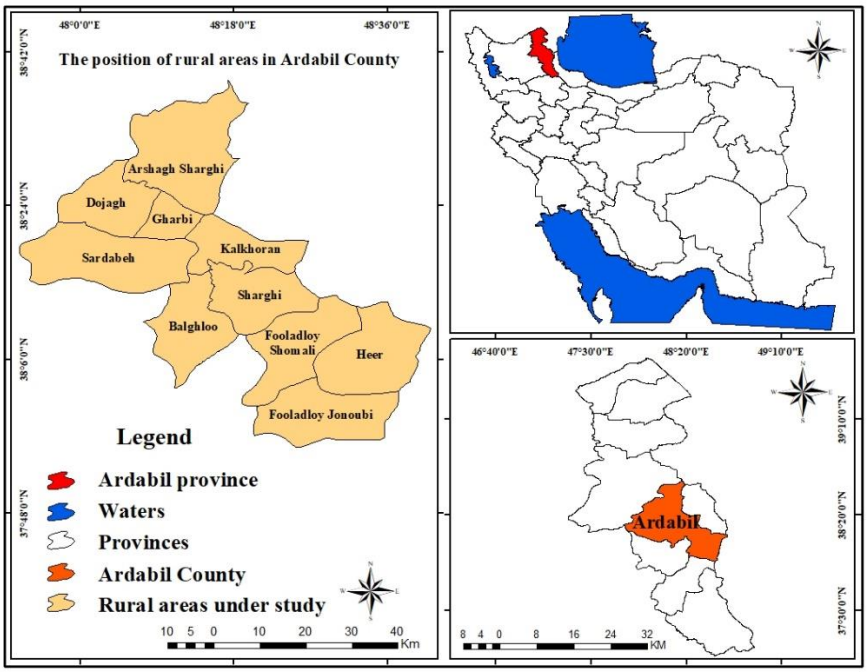


Figure 1. Political position of the study area
Source: Management and Planning Organization of Ardabil Province (2018)

3.2. Methodology

An analytical-exploratory applied method was used in this study. To collect the data, library and field methods were employed. The study area was Ardabil Township, located in northwestern Iran. To evaluate the levels of living in the study area, first, the initial indices were prepared by a review of the research background, and their frequency was obtained. After the primary selection of the indices, their validity and reliability were measured. In this context, the Delphi method (to obtain experts' opinions) and Cronbach's alpha coefficient (0.765) were recruited. Then, the rural areas were ranked through the Morris method. To identify the competitive advantages, the related activities in the study area were further explored considering four indices of spatial benefit, exports, attention to upstream projects (i.e., provincial land-use planning, regional development plan, as well as strategic and operational documents in Ardabil Province), and capacity growth in rural areas, reflected in expert opinions. Then, in order to identify the activities with competitive advantages over indexing, the research background and the frequency of indices were reviewed. To evaluate the quality indices, the data of the business environment monitoring report prepared by the Iran Chamber of Commerce, Industries, Mines, and Agriculture in 2019 were retrieved. As such, using the Morris method, the activities with competitive advantages were ranked, and finally, the strengths and weaknesses, as well as cooperation areas, were extracted via the Geographic Information System (GIS Software) and the inverse distance weighting (IDW) method in each activity according to the selected indices. Ultimately, the transactional analysis of the factors affecting BRD based on local competitiveness was fulfilled using MicMac software to identify the status of each one in the system (i.e., BRD). Figure 1 shows the research process.

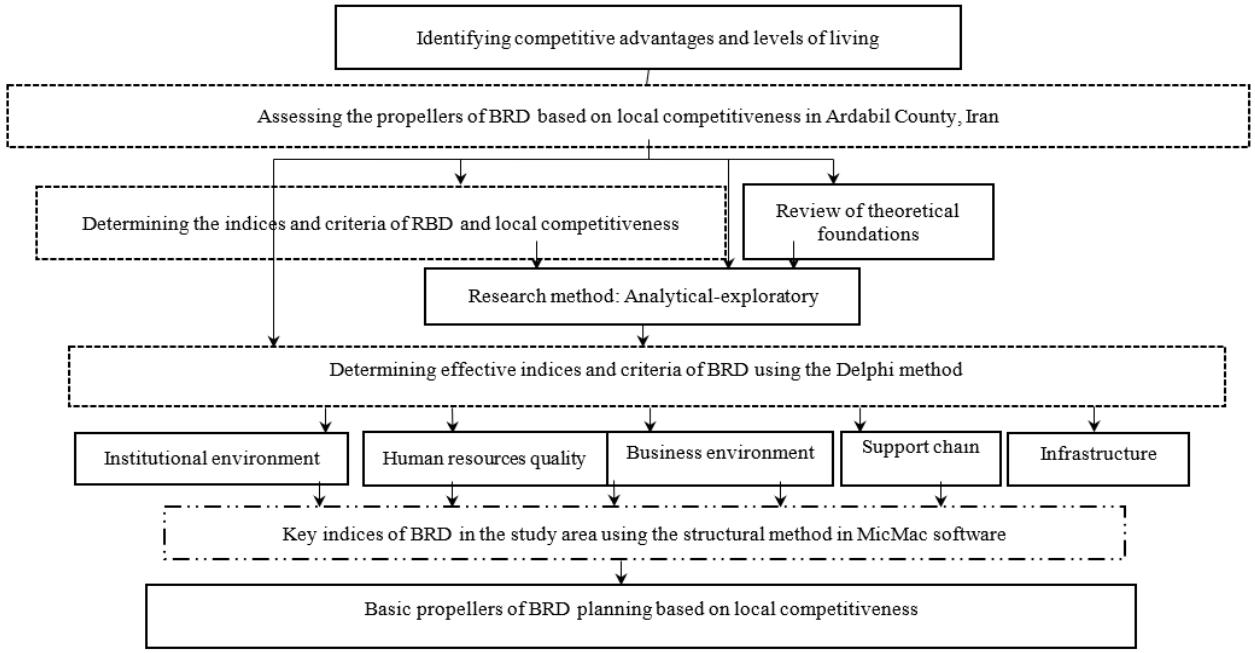


Figure 2. Futures study process of BRD based on local competitiveness in Ardabil Township, Iran

4. Research Findings

4.1. Assessing the Study Area for RBD Components

At the first stage, in order to analyze the status of the study area in terms of development, the RBD components and indices in the study area were examined, and finally, the levels of living were compared and ranked using the Morris method (Table 2).

Table 2. Evaluating the levels of living among villages in the study area based on RBD indices using the Morris method

District	Villages	DI	Ranking
Heer	Fooladloy Shomali	78.7	1
Markazi	Kalkhoran	75.3	2
Samrin	Gharbi	74.8	3
Markazi	Sharghi	70.8	4
Markazi	Sradabeh	69.3	5
Samrin	Dojagh	51.8	6
Heer	Heer	44.6	7
Heer	Fooladloy Jonoubi	31.6	8
Markazi	Arshagh Sharghi	30.5	9
Markazi	Balghloo	8.9	10

The criteria for identifying the rural areas with cooperation potential (Table 3) were reviewed and the compliance of the activities and characteristics of the sample villages with spatial zoning of cooperation areas was performed in the GIS and IDW, whose outputs are illustrated in Figure 3 and Table 3.

Table 3. Criteria for identifying areas with common cooperation potentials in rural areas

Criteria
Distance to the nearest adjacent main road
Distance to the nearest water resources
Rural population
Levels of living
Distance to lands and orchards with large areas
Distance to the nearest city

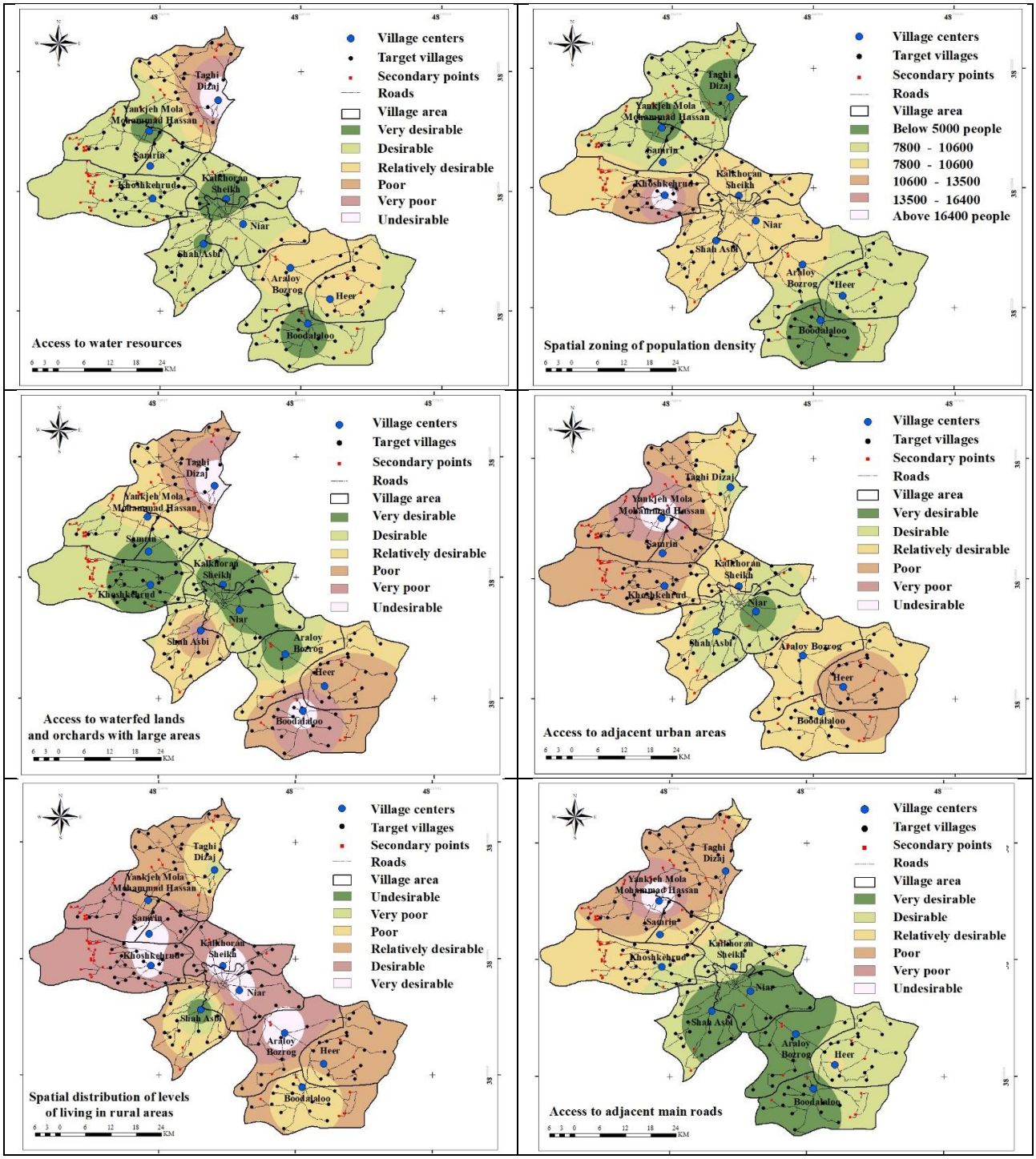


Figure 3. Spatial zoning space areas of cooperation in rural areas using IDW model

To identify the areas with competitive advantages at the second stage, the activities in the study area were considered based on four indices of spatial benefit, exports, attention to upstream projects (that is, provincial land-use planning, regional development plan, as well as strategic and operational document in Ardabil Province, Iran), and capacity growth in rural areas, reflected in expert opinions (Table 4).

Table 4. Identifying the domains of competitive advantages in the study area
Source: Research findings, 2020; basic data were extracted from National Statistics Portal, 2020

Description	Spatial benefit	Exports	Attention to upstream projects	Capacity growth in rural areas
Agriculture, forestry, and fishing		■	■	■
Mining		■		■
Industrial production (manufacturing)	■	■	■	■
Agro-industry and processing of agricultural products		■	■	■
Supply of electricity, gas, steam, and air conditioning				
Water supply, waste management, sewage, and water filtration activities				
Buildings		■		■
Wholesale and retail sale along with repair and maintenance of motor vehicles and motorcycles	■		■	■
Transportation and warehousing	■		■	■
Service activities associated with accommodation and food			■	■
Information and communication	■			
Financial and insurance activities	■		■	
Real estate activities	■			
Professional, scientific, and technical activities				
Administrative activities and support services	■		■	
Public administration, defense, and compulsory social security activities				
Education				
Human health and social work activities			■	■
Art, entertainment, and recreational activities	■		■	
Other services and activities	■			

Industries, Mines, and Agriculture in 2019 were retrieved. As such, using the Morris method, the activities with competitive advantages (resulting from the indexing using the research background and the frequency of indices in Table 4) were ranked (Table 5).

Then, in order to identify the activities with competitive advantages over indexing, the research background and the frequency of indices were reviewed. To evaluate the quality indices, the data of the business environment monitoring report prepared by the Iran Chamber of Commerce,

Table 5. Ranking activities with competitive advantages over indexing using background research and frequency of indices

Rating	Activities
3	Agriculture, forestry, fishing, animal husbandry
4	Agro-industry and processing of agricultural products
5	Industrial production (manufacturing)
1	Transportation and warehousing
2	Commerce, wholesale and retail sale, as well as repair and maintenance of motor vehicles and motorcycles

Finally, factors strengthening and diminishing the activities in Ardabil Township were extracted with respect to the selected indices (Table 6).

Table 6. Factors strengthening and diminishing activities in Ardabil Township, Iran
Source: Research Findings, 2020; Basic indices were extracted from the Iran Chamber of Commerce, Industries, Mines, and Agriculture, 2019

Activities	Strengthening factors	Diminishing factors
Agriculture, forestry, fishing, animal husbandry	Access to infrastructure, insurance services, market demand, unwillingness to buy imported products, product innovation, lack of rents, and no administrative corruption	Unstable administrative policies, rules, and procedures, lack of skilled labor, unfair competitions between companies and public/private institutions in the market, and lack of required technologies
Agro-industry and processing of agricultural products	Healthy competitions, no absenteeism, acceptance of innovations, absence of counterfeit consumer goods, and proper distribution system to bring products to markets	Limited access and poor infrastructure, lack of or defects in backward/forward linkage and product clustering, no transparency of information about economic activities, non-volatile and unpredictable prices (raw materials and products), rents, financial and administrative corruption, and biased perceptions of laws
Industrial production (manufacturing)	Access to infrastructure, clustered communications, low taxes, high finance and capital investment, free access to information, skilled labor, stability in administrative policies, rules, and procedures, and fair competitions	Willingness to buy foreign goods, monopoly, no acceptance of innovations
Transportation and warehousing	Access to communication systems, appropriate technologies, transparency of information, lack of rents, no absenteeism	Poor infrastructure, high levels of taxation, banking finance difficulties, pricing and illogical interventions by governmental institutions in the market, lack of commitment to contract obligations by both sides, relatively free production and supply of non-standard and counterfeit goods in the market, unfair competitions, no acceptance of innovations by partners and customers, corruption, poor responses to complaints, and unstable administrative policies, procedures, regulations
Commerce, wholesale and retail sale, as well as repair and maintenance of motor vehicles and motorcycles	Access to infrastructure, unwillingness to buy foreign goods, and no biased regulations	Poor responses to complaints, corruption, unstable administrative policies, regulations, and procedures, labor shortages, price instability, rents, unfair competitions, lack of commitment to contract obligations and promises by both sides, no information transparency, lack of or defects in backward/forward linkage and product clustering

As depicted in Table 6, access to infrastructure in most activities is in good condition and other strengths can be observed in the activities for agriculture and forestry, insurance services, demand for agro-industry in the market, healthy competitions, no absenteeism, acceptance of innovations, etc.

4.2. Transactional Analysis of BRD Components based on Local Competitiveness

The study variables (namely, basic standards and parameters derived from the national business environment monitoring report in Iran in 2019, analyzed on the basis of theoretical literature, research background, and expert opinions), using transactional analysis in MicMac software, were reviewed and analyzed. For this purpose, a 23*23 matrix was employed to determine the status of each of them in the system (i.e., BRD). The respondents were also asked to compare the study variables through paired comparisons.

4.2.1. Matrix of Direct Influence (MDI)

First, the MDI was formed based on the mean values obtained from the questionnaires to produce the results of interactions, graphs, and maps. The initial analysis of the matrix data and the transactional analysis outcomes showed a total number of 23 options for the matrix considering its dimensions, of which, 389 relations could be assessed. The matrix filling degree was 73.64%, suggesting that 73.64% of the selected factors

could influence each other. Moreover, the matrix with twice-over rotation was 100% optimum based on the statistical data, indicating the high reliability of the questionnaire and its answers (Table 7).

Table 7. Initial analysis of the data matrix and its statistics

Matrix dimensions	Number of repetitions	No influence (0)	Low influence (1)	Moderate influence (2)	High influence (3)	Total	Filling degree
23*23	2	140	87	161	141	389	73.64%

The analysis of direct transactional matrix results (identifying the activities with greater economic advantages given the areas under study), the variables of the stability of executive policies, regulations, and procedures as well as monopoly prevention and concessions, or rents, and unfair competitions had the greatest influence; in contrast, the participation of local residents and financial and administrative corruption had high dependence in BRD based on local competitiveness (Table 8).

Table 8. Direct transactional effects of factors/variables

Source: Research findings, 2020, the basic indices were extracted from the Iran Chamber of Commerce, Industries, Mines, and Agriculture, 2019

Variables	Influence		Dependence		Variables	Influence		Dependence	
	Score	Ranking	Score	Ranking		Score	Ranking	Score	Ranking
Sustainable financing	27	15	53	21	Effective market demand	50	6	40	6
Financial and administrative corruption	30	14	47	2	Auditing and taxing regulations/ procedures	41	13	39	8
Participation of local residents	23	17	28	1	Removal of administrative barriers to business through delegation approach	48	8	32	16
Access to transport infrastructure	18	19	30	17	Innovation and initiative flow	51	3	38	11
Access to soft communication infrastructure	19	18	33	14	Backward/forward linkage and product clustering	45	12	46	3
Lack of public absenteeism and closure welcome by labor	18	19	39	8	Prevention of biased perceptions of laws by relevant stakeholders	49	7	36	12
Access to required technologies	15	21	25	21	Distribution system and marketing status	48	8	39	8
Access to skilled labor	6	23	34	13	Willingness to buy foreign goods	42	11	40	6
Access to electricity and fuel infrastructure	11	22	33	14	Prevention of monopolies, unfair concessions, or rents and competitions	57	2	30	17
Effective deterrence of criminal laws and prosecutions in the judicial system	43	10	29	19	Administrative procedures and business information transparency	51	3	42	5
Stability of executive policies, regulations, and procedures	62	1	25	22	No production and supply of relatively free non-standard, counterfeit, and contraband goods	27	15	45	4
Price stability and predictability and intervention logic	51	3	29	19	Total	832	-	832	-

In this method, the effects of the matrix variables could be measured. The variable directly affecting a limited number of variables had little influence on the whole system (i.e., BRD) and that all variables and their surrounding environment could be displayed in a graph conceptually or via coordinates (influence/dependence axes). Figure 4 shows the position of the variables evaluated in the MDI.

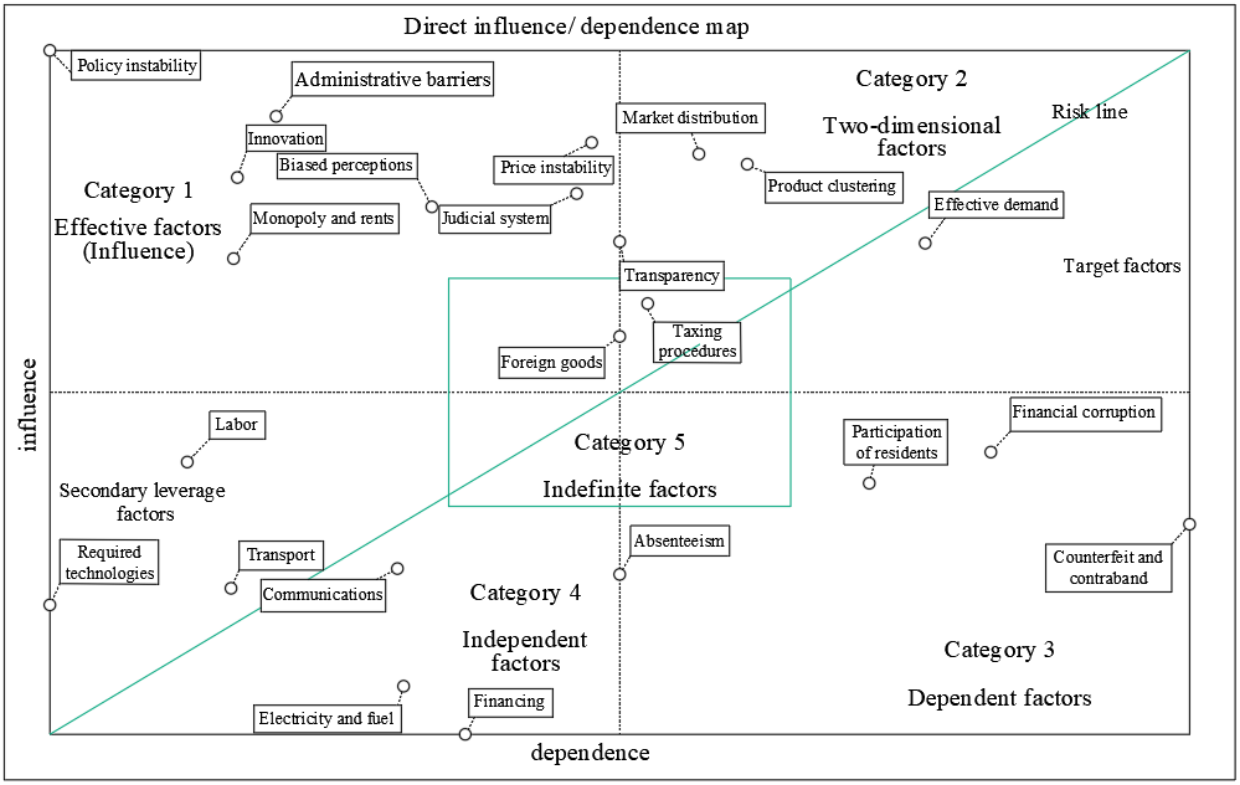


Figure 4. Distribution of variables and their position in influence-dependence MDI

The position of the variables in this diagram represents their status in the system. In general, these variables are grouped into five categories, whose status can be identified in Figure 4. Accordingly, the variables found in the top part of the diagram bisector have a strong influence on the system. In this sense, the placement of each variable in the five categories mentioned and their influence-dependence are provided as follows:

A) Effective Variables (Influence)
These variables have the highest influence and minimal dependence on the BRD.
B) Two-Dimensional Variables
These variables simultaneously have high influence and dependence in the BRD. It should be noted that the backward/forward linkage and product clustering were introduced as the target variable.

C) Dependent Variables
The variables of administrative and financial corruption, participation of local residents, no public absenteeism and closure welcome by labor, and production and supply of relatively free non-standard, counterfeit, and contraband goods were the most frequent dependent variables in the BRD, which were more sensitive compared with effective and two-dimensional ones.
D) Independent Variables
The variables of access to transport infrastructure, access to communication software infrastructure, access to required technologies, access to skilled labor, and access to electricity and fuel infrastructure were identified as the independent variables in the BRD. This meant that such variables had not been affected by other variables and even had little or no influence on them. Of the

above-mentioned variables, sustainable financing, access to transport infrastructure, and access to required technologies were the secondary leverage variables in the system.

E) Indefinite/Regulatory Variables

No variable was within this category.

4.2.2. Matrix of Indirect Influence (MII)

In the MII, each variable was powered by 2, 3, 4, 5, etc. via the software and accordingly, their indirect influence was measured. This matrix suggested that the variables of policy stability, executive regulations and procedures, monopoly prevention, unfair concessions, rents, and competitions, price stability and predictability and intervention logic, sustainable financing, and prevention of biased perceptions of laws by relevant stakeholders were among the most effective variables, while participation of local residents, backward/forward linkage and product clustering, financial and administrative corruption, production and supply of relatively free non-standard, counterfeit, and contraband goods, and administrative procedures and business information transparency were introduced as most indirect dependent variables (Table 9).

Table 9. Indirect influence of factors/variables on each other

Variables	Effect		Dependence		Variables	Effect		Dependence	
	Score	Ranking	Score	Ranking		Score	Ranking	Score	Ranking
Sustainable financing	7155	4	42840	15	Effective market demand	63476	10	52571	6
Financial and administrative corruption	34596	15	60716	3	Auditing and taxing regulations/ procedures	59557	13	50780	9
Participation of local residents	29440	18	68689	1	Removal of administrative barriers to business through delegation approach	65204	9	42381	16
Access to transport infrastructure	20619	19	40373	17	Innovation and initiative flow	69180	7	49906	11
Access to soft communication infrastructure	18945	20	43261	14	Backward/forward linkage and product clustering	60361	12	61052	2
Lack of public absenteeism and closure welcome by labor	18138	21	51781	8	Prevention of biased perceptions of laws by relevant stakeholders	69868	5	46138	12
Access to required technologies	13645	22	31168	23	Distribution system and marketing status	67133	8	50665	10
Access to skilled labor	4783	23	43779	13	Willingness to buy foreign goods	61713	11	52430	7
Access to electricity and fuel infrastructure	32375	16	34702	21	Prevention of monopolies, unfair concessions, or rents and competitions	77592	2	39604	18
Effective deterrence of criminal laws and prosecutions of the judicial system	54949	14	37635	20	Administrative procedures and business information transparency	69771	6	54038	5
Stability of executive policies, regulations, and procedures	80812	1	32770	22	No production and supply of relatively free non-standard,	30507	17	58010	4

Variables	Effect		Dependence		Variables	Effect		Dependence	
	Score	Ranking	Score	Ranking		Score	Ranking	Score	Ranking
					counterfeit, and contraband goods				
Price stability and predictability and intervention logic	73229	3	37759	19	Total				

Moreover, Figure 5 shows the position of the variables evaluated in the MII.

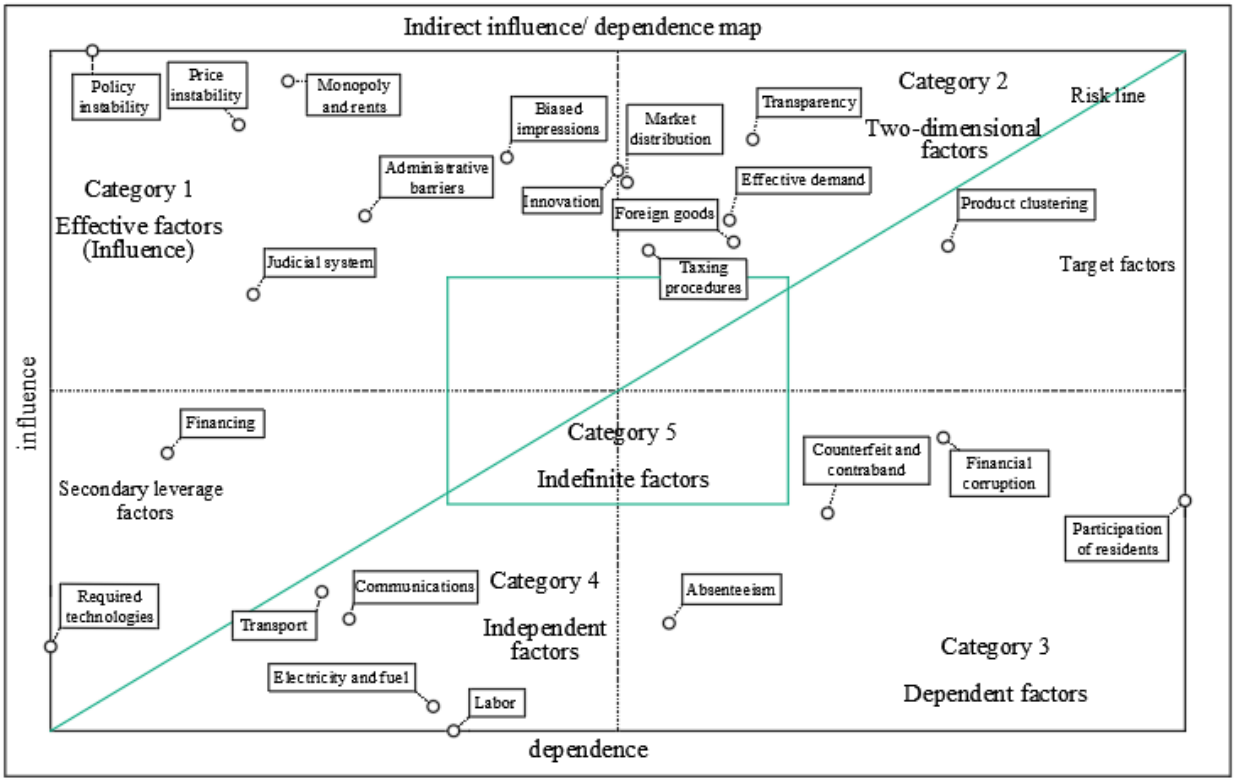


Figure 5. Distribution of variables and their position in the influence-dependence MII

4.2.3. Ranking the General Influence / Dependence of Variables

Another stage in this study was to rank the influence-dependence of the variables. Accordingly, Table 10 presents the overall ranking (direct and indirect influence) of the variables evaluated in two states, i.e., general influence and dependence.

Table 10. Ranking influence-dependence of the variables

Variables	Influence ranking			Dependence ranking		
	Direct	Indirect	Final	Direct	Indirect	Final
Sustainable financing	15	4	10	21	21	21
Financial and administrative corruption	14	15	15	2	3	2
Participation of local residents	17	18	18	1	1	1
Access to transport infrastructure	19	19	20	17	17	17
Access to soft communication infrastructure	18	20	19	14	14	14
Lack of public absenteeism and closure welcome by labor	19	21	21	8	8	8
Access to required technologies	21	22	22	21	23	22
Access to skilled labor	23	23	23	13	13	13

Access to electricity and fuel infrastructure	22	16	17	14	15	15
Effective deterrence of criminal laws and prosecutions of the judicial system	10	14	13	19	20	20
Stability of executive policies, regulations, and procedures	1	1	1	22	22	23
Price stability and predictability and intervention logic	3	3	3	19	19	19
Effective market demand	6	10	8	6	6	6
Auditing and taxing regulations/procedures	13	13	14	8	9	9
Removal of administrative barriers to business through delegation approach	8	9	9	16	16	16
Innovation and initiative flow	3	7	5	11	11	11
Backward/forward linkage and product clustering	12	12	12	3	2	3
Prevention of biased perceptions of laws by relevant stakeholders	7	5	6	12	12	12
Distribution system and marketing status	8	8	7	8	10	10
Willingness to buy foreign goods	11	11	11	6	7	7
Prevention of monopolies, unfair concessions, or rents and competitions	2	2	2	17	18	18
Administrative procedures and business information transparency	3	6	4	5	5	5
No production and supply of relatively free non-standard, counterfeit, and contraband goods	15	17	16	4	4	4

Accordingly, stability of administrative policies, regulations, and procedures, monopoly prevention, unfair concessions or rents and competitions, price stability and predictability and intervention logic, administrative procedures and business information transparency, and innovation and initiative flow had the highest rankings in terms of general influence. On the other hand, the variables of participation of local residents, financial and administrative corruption, backward/forward linkage and product clustering, production and supply of relatively free non-standard, counterfeit, and contraband goods, and administrative procedures and business information transparency obtained the highest rankings with regard to their dependence.

4.2.4. Selection of PRD Drivers

Since identifying drivers requires the simultaneous consideration of influence-dependence variables, the study variables were discussed in terms of their position in the graph as well as their influence and dependence. As already mentioned, the elements in the top part of the bisector are the ones whose influence is more than their dependence. The variables in the first (input or key), second (intermediate or two-dimensional), and fifth (clustered or indefinite) areas placed above the bisector accordingly have high importance and influential power. Therefore, they are the most important BRD variables. According to Table 11, data analysis in terms of the variables with the influential power and direct effects showed that among 23 variables in the study, 13 cases were at the top of the bisector of the direct influence-dependence diagram (eight variables in the first area and five variables in the second area) (Figure 5), of which, 12 variables had positive influence, including policy stability, executive regulations and procedures, price stability and predictability and intervention logic, monopoly prevention, unfair concessions or rents and competitions, effective deterrence of criminal laws and prosecutions of the judicial system, innovation and initiative flow, prevention of biased perceptions of laws by relevant stakeholders, removal of administrative barriers to business through delegation approach, auditing and taxing regulations/procedures from the first area and effective market demand, administrative procedures and business information transparency, backward/forward linkage and product clustering, distribution system and marketing status, and willingness to buy foreign goods from the second area. The highest rankings of the direct influence of the variables in the first area were particularly associated with policy stability, executive regulations/procedures, monopoly prevention, unfair concessions or rents and competitions, and price stability and predictability and intervention logical (Table 11).

Table 11. Key variables determining BRD (in terms of direct influence)

Area/ Category	Variables	Influence	Dependence	Gross influence (Influential power)	Gross dependence ranking
First area Effective variables (Influence)	Policy stability, administrative regulations, and procedures	62	25	37	1
	Price stability and predictability, and intervention logic	51	29	22	3
	Prevention of monopolies, unfair concessions or rents and competitions	57	30	27	2
	Removal of administrative barriers to business through delegation approach	48	32	16	4
	Effective deterrence of criminal laws and prosecutions of the judicial system	43	29	14	5
	Innovation and initiative flow	51	38	13	6
	Prevention of biased perceptions of laws by relevant stakeholders	49	36	13	6
	Auditing and taxing regulations/procedures	41	39	2	11
Second area Two-dimensional variables	Effective market demand	50	40	10	8
	Administrative procedures	51	42	9	9
	Backward/forward linkage and product clustering	45	46	-1	13
	Distribution system and marketing status	48	39	9	9
	Willingness to buy foreign goods	42	40	2	11

According to Table 12 reflecting on the variables with indirect influence, among 23 variables in the study, there were 13 cases at the top of indirect influence/dependence diagram bisector (namely, seven variables in the first area and six variables in the second area) (Figure 6), of which, 12 variables had positive influence, including policy stability, executive regulations/procedures, price stability and predictability and intervention logic, monopoly prevention, unfair concessions or rents and competitions, removal of administrative barriers to business through delegation approach, effective deterrence of criminal laws and prosecutions of the judicial system, innovation and initiative flow, prevention of biased perceptions of laws by relevant stakeholders from the first area and backward/forward linkage and product clustering, distribution system and marketing status, effective market demand, administrative procedures and business information transparency, willingness to buy foreign goods, and auditing and taxing regulations/procedures from the second area. Moreover, the highest rankings of the indirect influence were related to the variables in the first area (in particular, policy stability, executive regulations/procedures, monopoly prevention, unfair concessions or rents and competitions, and price stability and predictability and intervention logic).

Table 12. Key variables determining BRD (in terms of indirect influence)

Area/ Category	Variables	Influence	Dependence	Gross effect (Influential power)	Gross dependence ranking
First area Effective variables (Influence)	Policy stability, administrative regulations, and procedures	80812	32770	48042	1
	Price stability and predictability and intervention logic	73229	37759	35470	3
	Prevention of monopolies, unfair concessions or rents and competitions	77592	39604	37988	2
	Removal of administrative barriers to business through delegation approach	65204	42381	22823	5

	Effective deterrence of criminal laws and prosecutions of the judicial system	54949	37365	17584	7
	Innovation and initiative flow	69180	49906	19274	6
	Prevention of biased perceptions of laws by relevant stakeholders	69868	46138	23730	4
Second area Two-dimensional variables	Backward/forward linkage and product clustering	60361	61052	-691	13
	Distribution system and marketing status	67133	50665	16498	8
	Effective market demand	63476	52571	10905	10
	Administrative procedures and business information transparency	69771	54038	15733	9
	Willingness to buy foreign goods	61713	52430	9283	11
	Auditing and taxing regulations/procedures	59557	50780	8777	12

According to the results in Table 12, among 23 variables investigated in this study, 12 cases were selected as the drivers of BRD based on local competitiveness in the study area, as presented in Table 13.

Table 13. Drivers of BRD based on local competitiveness in the study area

Variables			
Policy stability, executive regulations and procedures	Price stability and predictability and intervention logic	Prevention of monopolies, unfair concessions or rents and competition	Removal of administrative barriers to business through delegation approach
Effective deterrence of criminal laws and prosecutions of the judicial system	Innovation and initiative flow	Prevention of biased perceptions of laws by relevant stakeholders	Distribution system and marketing status
Effective market demand	Administrative procedures	Willingness to buy foreign goods	Auditing and taxing regulations/procedures

Indeed, these variables were introduced as the drivers in the present study, namely, the variables at the top of the bisector of the direct and indirect influence diagram (Figures 5 and 6). It should be noted that these variables were obtained by comparing the rankings of direct and indirect influence.

4.2.5. Identification of Strategic Variables

Strategic variables are the ones that can be manipulated, controlled, and even influence the system dynamics and changes. It should be noted that as the end of the fourth area gets closer to the end of the second area, the strategic importance of the variables is added (Figure 6). According to the given explanations and with regard to the following figure, none of the variables in this study was strategic.

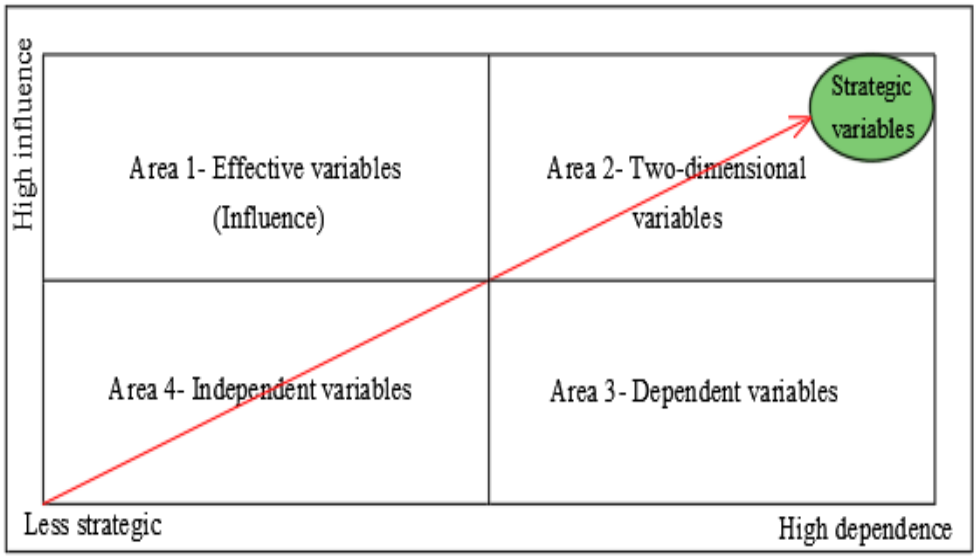


Figure 6. The position of strategic variables
Source: Ziari et al., 2017, p. 73

4.2.6. System Stability and Instability

The distribution of the variables in the influence-dependence diagram denotes the system stability or instability. If the distribution of the variables has an L form, the system is stable and this stability indicates stability in effective variables and their continuing influence on other variables. If the variables move from the axis towards the bottom of the diagram and spread around it, the system is not stable and the lack of effective variables threatens the system (Figure 7), making the assessment and identification of such key factors very problematic (Godet, 2003).

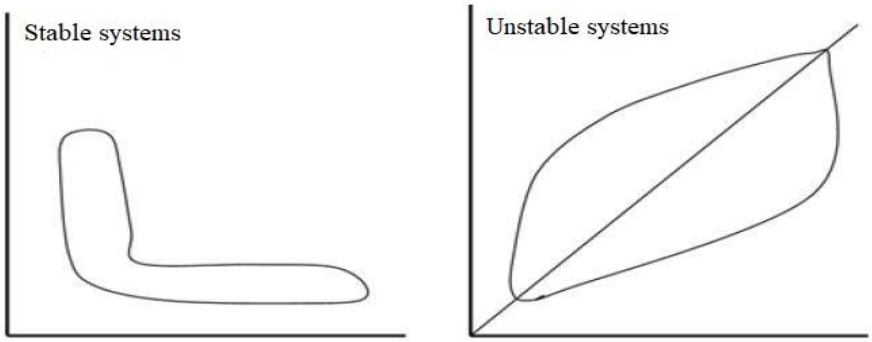


Figure 7. Schematic view of the system stability and instability
Source: Ziari et al., 2017, p. 74

Hence, the distribution of the variables in the direct and indirect influence-dependence axes (Figures 4 and 5) shows the system is unstable (the right side of Figure 7), because the factors are distributed in the four areas of the diagram.

5. Discussion and Conclusion

Unbalanced development and no spatial justice in the distribution of welfare and wealth can lead to inequality, migration, unemployment, poverty, and dissatisfaction, abandoned settlements in rural and marginalized areas, and even security problems for a country and divergence in these areas. Identifying and assessing competitive advantages and levels of living along with BRD using futures study can be thus useful in solving new regional problems. Accordingly, it is necessary to revise macro-management approaches and utilize novel tools for regional

planning. Achieving this goal in Ardabil Township required identifying key factors and drivers of BRD. In this study, the variables were obtained from the Delphi method with reference to expert opinions and then analyzed through MicMac software to identify the BRD drivers based on local competitiveness in the area concerned and the results were as follows.

The variables of policy stability, executive regulations and procedures, monopoly prevention, unfair concessions or rents and competitions, as well as price stability and predictability and intervention logic had the highest rankings of general influence, and the variables of participation of local residents, financial and administrative corruption, and backward/forward linkage and product clustering obtained the highest rankings in terms of dependence.

The results regarding the variables with the influential power and direct effects showed that among 23 variables of this study, 13 variables were within direct influence-dependence scope or condition but only 12 variables respectively prioritized as policy stability, executive regulations and procedures, price stability and predictability and intervention logic, monopoly prevention, unfair concessions or rents and competitions, removal of barriers to business administration through delegation approach, effective deterrence of criminal laws and prosecutions of the judicial system, innovation and initiative flow, prevention of biased perceptions of laws by relevant stakeholders, distribution system and marketing status, effective market demand, administrative procedures and information business transparency, willingness to buy foreign goods, as well as auditing and taxing rules/procedures were among the variables with the highest positive direct and indirect influence and dependence and they were among the variables with high influential power, i.e., they constituted the BRD drivers. Moreover, the results revealed that none of the variables in this study was strategic and their distribution of the direct and indirect influence and dependence axes indicated the system instability. Therefore, any planning in order to achieve BRD in the study area based on local competitiveness needs to respect the key and basic roles of these variables, which have high influence and low dependence in BRD, as the main priorities in this study. The results of the present study were consistent with the findings reported by Zali and Zamanipour (2015) based on the systematic analysis of regional development variables in Mazandaran province, Iran, in terms of some parameters such as methodology and macro variables; however, there were discrepancies in the main variables and drivers due to the different conditions of Ardabil Township and the selected areas in Mazandaran province. Moreover, the results were in conflict with the reports by Karimipour and Aref (2016) on the role of political management of space in BRD in which geographical isolation, low value-added, range of distance, and no coordination in the management of administrative organizations had decelerated the BRD in Chabahar Port, so that establishing a province with the capital city of Chabahar Port could be the key to solving this problem. Considering similar methodologies and results, Dadashpour and Dadehjani (2015) had also identified and prioritized the root factors affecting improvements in regional competitiveness in Kurdistan province, Iran.

According to the findings and the identified drivers of BRD based on local competitiveness, the following suggestions are offered:

- Exploiting key variables and drivers introduced in the present study for the evaluation and planning of BRD in rural areas of Ardabil Township, Iran;
- Making decisions at the macro level in order to strengthen the position of the government in policy-making and developing mechanisms to execute laws with no direct government intervention in the implementation of programs and affairs to reduce administrative formalities and pass minimum rules, stabilize rules, and prevent sudden changes;
- Delegating the necessary authority by legal institutions to the bodies executing and supervising programs at the level of local managers of Ardabil Township to achieve BRD;
- Streamlining the participation of local residents in the study area in order to benefit from interests and improve their views on the issue of BRD in Ardabil Township;
- Training and changing the attitudes of senior managers of Ardabil Township to increase the professional skills of employees in the field of streamlining and facilitating BRD based on local competitiveness;
- Making decisions with regard to flexibility, scalability, and adjustment of the BRD program in the study area based on local necessities within specific time limits.

Acknowledgement- This article was derived from an intra-organizational research project developed by the first author, entitled "Presenting a balanced regional development (BRD) model based on industrial clusters and competitiveness", approved and funded by the Vice Chancellor's Office for Research and Technology at the University of Mohaghegh Ardabili (UMA), Ardabil, Iran.

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Journal of Research and Rural Planning
Volume 11, No. 1, Winter 2022, Serial No. 36, Pp. 81-102
eISSN: 2783-2007 **ISSN: 2783-2791**
http://jrrp.um.ac.ir

Original Article

تحلیل پیشران‌های مؤثر توسعهٔ متوازن ناحیه ای بر مبنای رقابت‌پذیری محلی (مورد مطالعه: نواحی روستایی شهرستان اردبیل)

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چکیده مبسوط

۱. مقدمه

هدف پژوهش حاضر شناسایی مزیت‌های رقابتی، سطح برخورداری و وضعیت توسعهٔ متوازن در سطح محلی و تحلیل پیشران‌های مؤثر در توسعهٔ متوازن ناحیه اردبیل بر مبنای رقابت‌پذیری محلی با رویکرد آینده‌نگاری است. بررسی‌های اولیه پژوهش در محدوده مورد مطالعه نشان می‌دهدکه به علت ماهیت سیاست‌های برنامه‌ریزی بخشی؛ محدودیت گروه‌هایی وسیع از ساکنین مناطق و شبکه‌های سکونتگاهی در دسترسی به امکانات و خدمات رفاه اجتماعی با محدودیت مشارکت در فرآیندهای تصمیم‌سازی به اشکال مختلف در سطوح کلان و خرد مشهود و بیانگر عدم تعادل در ساختار فضایی سکونتگاه‌های شهری و روستایی است. از این رو، اتخاذ استراتژی‌ها و راهکارهایی صحیح با توجه به پتانسیل‌های و مزیت‌های موجود در محدوده می‌تواند مشکلات و چالش‌های نواحی روستایی محدوده مورد مطالعه را با نگاهی به برقراری تعادل منطقه‌ای به حداقل برساند. بنابراین سوالات زیر در پژوهش حاضر مطرح می‌شود: نواحی مورد مطالعه مبنی بر مؤلفه‌های توسعهٔ متوازن در چه وضعیتی قرار دارند؟ و عوامل کلیدی و نیروهای پیش‌ران توسعهٔ متوازن ناحیه‌ای شهرستان اردبیل کدام‌اند و میزان تأثیر هرکدام بر توسعهٔ متوازن محدوده چقدر است؟

۲. مبانی نظری تحقیق

امروزه وجه مشترک اغلب نظریه‌های مکانی – فضایی؛ تحرک منطقه‌ای، کاهش نابرابری سازمان فضایی، به حداقل رساندن تباینات فضایی و برقراری توسعهٔ متوازن می‌باشد اما در بسیاری از کشورهای جهان سومی؛ با غلبه تقسیمات سیاسی، کارآمدی و اثرگذاری عاملیت فضای عملکردی مبتنی بر جریان‌های ناحیه ای به حاشیه رانده شده است. به عبارت دیگر؛ در قرن ۲۱ بحث رقابت‌پذیری در نومنطقه گرایی؛ بیانگر موضوعاتی از قبیل: مناطق همپیوند عملکردی اقتصادی، محیط زیست و ایجاد شبکه‌های عملکردی که در توسعه‌اش پویا و نسبت به تغییر و انطباق، باز است. در این نگاه، نواحی بیش از آنکه براساس مفهوم جغرافیایی تعریف شود، به صورت پهنه‌ای که «به‌طور اجتماعی تکوین یافته» تلقی می‌شود و از سنت‌های فکری مؤثر آن؛ رقابت‌پذیری ناحیه ای و منطقه ای، فضای جریان‌ها و حکمروایی، نهادگرایی، شبکه‌ها، خوشه‌ها و پایداری است. پس از دهۀ ۷۰ میلادی با تغییر در نگرش به دولت و توسعه، برنامه‌ریزی و سیاست‌گذاری از سطح ملی و بین‌المللی به سطح منطقه‌ای و محلی متمایل گشت. با اهمیت یافتن ارزش‌های منطقه‌ای و محلی، از یک سو با تغییر در کارکرد دولت در توسعه منطقه‌ای بر نهادسازی و رقابت‌پذیری منطقه‌ای تأکید شد که به عنوان یکی از دستاوردهای نوین و کارآمد جهت دستیابی به توسعه و تعادل منطقه‌ای با بالا بردن توان و ظرفیت مناطق استفاده از استعداد ها و توانمندی‌هایشان؛ به مشارکت همه جانبه مناطق تاکید دارد و تحقق این امر افزایش بهره وری، رقابت‌پذیری و کاهش تمرکزگرایی را در پی خواهد داشت.

۳. روش‌شناسی تحقیق

روش تحقیق تحلیلی ـــ اکتشافی و از نظر هدف کاربردی، محدودهٔ مورد مطالعه نواحی روستایی شهرستان اردبیل و جامعهٔ آماری تحقیق شامل پژوهشگران در حوزهٔ برنامه‌ریزی منطقه‌ای در سطح شهرستان اردبیل است. حجم نمونه به روش نمونه‌گیری گلوله برفی

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(با اشباع نظری) ۳۰ نفر بدست آمده است. جمع‌آوری اطلاعات از طریق پرسشنامه به روش دلفی و همچنین به صورت کتابخانه‌ای و از طریق بررسی اسناد، آمارنامه‌ها و طرح‌های تهیه شده؛ گردآوری شده است. برای تجزیه و تحلیل داده‌ها از نرم‌افزار MICMAC، مدل رتبه‌بندی موریس و نرم‌افزار GIS و EXCEL استفاده شده است.

۴. یافته های تحقیق

تجزیه و تحلیل یافته های پژوهش در خصوص متغیرهای دارای قدرت تعیین‌کنندگی با اثرات مستقیم نیز نشان داده که از بین ۲۳ متغیر پژوهش تعداد ۱۳ متغیر در محدوده یا شرایط تأثیرگذاری و تأثیرپذیری مستقیم قرار گرفته‌اند اما فقط تعداد ۱۲ متغیر به ترتیب الویت؛ شامل: (ثبات سیاست‌ها، مقررات و رویه‌های اجرایی، ثبات و قلبل پیش‌بینی بودن قیمت‌ها و دخالت‌های منطقی، پیشگیری از انحصار، امتیاز یا رانت و رقابت نامنصفانه، رفع موانع اداری کسب وکار با رویکرد تفویض اختیار، بازدارندگی مؤثر قوانین جزائی و پیگرد مؤثر دستگاه قضا، جریان نوآوری و ابتکار، پیشگیری در برداشت‌های سلیقه‌ای از قوانین توسط ذی مدخلان، وضعیت نظام توزیع و بازاررسانی، تقاضای مؤثر در بازار، رویه‌های اداری و شفافیت اطلاعات کسب و کار، تمایلات خرید کالاهای خارجی، قوانین و رویه ممیزی و دریافت مالیات) جزو متغیرهای دارای قدرت تعیین‌کنندگی بالا بوده و بعبارت دیگر نیروهای پیش‌ران توسعهٔ متوازن ناحیه‌ای را تشکیل می دهند همچنین نتایج پژوهش نشان داد هیچکدام از متغیرهای این تحقیق، جزو متغیرهای استراتژیک نبوده و نحوه پراکنش متغیرها در محورهای تأثیرگذاری/ تأثیرپذیری مستقیم و غیرمستقیم، نشان دهنده ناپایداری سیستم است.

۵. بحث و نتیجه گیری

از آنجایی که تجزیه و تحلیل یافته های پژوهش در خصوص متغیرهای دارای قدرت تعیین‌کنندگی با اثرات مستقیم نیز نشان داده که ۱۲ متغیر با بیشترین امتیاز و الویت؛ جزو متغیرهای دارای قدرت تعیین‌کنندگی بالا و نیروهای پیش‌ران توسعهٔ متوازن نواحی روستایی شهرستان اردبیل هستند؛ هرگونه برنامه‌ریزی توسعهٔ متوازن ناحیه‌ای در نواحی روستایی شهرستان اردبیل باید نقش کلیدی عوامل مذکور را مورد توجه قرار دهد. همچنین، با توجه به ماهیت و وضعیت پیشران های اصلی از قبیل: "ثبات سیاست‌ها، مقررات و رویه‌های اجرایی"، "ثبات و قلبل پیش‌بینی بودن قیمت‌ها و دخالت‌های منطقی" ؛ می بایستی به سیاستگذاری در راستای تثبیت جایگاه دولت در حد سیاست‌گذاری و طراحی سازوکار اجرای قوانین و عدم دخالت مستقیم دولت در اجرای برنامه‌ها و امور؛ کاهش تشریفات اداری و تصویب حداقل قوانین، ثبات قوانین و جلوگیری از تغییرات ناگهانی آن؛ اقدام نمود. از سوی دیگر به تنفیذ اختیارات لازم از سوی نهادهای قانونی به دستگاه‌های مجری و ناظر برنامه در سطح مدیران محلی شهرستان اردبیل جهت تحقق توسعه متوازن نواحی روستایی اقدام نمود.

کلیدواژه‌ها: توسعهٔ متوازن، مزیت رقابتی، آینده پژوهی، تحلیل ساختاری متقابل، شهرستان اردبیل.

تشکر و قدردانی

این مقاله برگرفته از طرح پژوهشی درو ن سازمانی نویسنده اول با عنوان «ارائه الگوی توسعه متوازن ناحیه ای مبتنی بر خوشه های صنعتی و رقابت پذیری» منعقد شده با معاونت پژوهشی و فناوری دانشگاه محقق اردبیلی است.

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How to cite this article:
Mohammadi, A., Abbasi, M.J. & Noori, A. (2022). Assessing the effective drivers of balanced regional development based on local competitiveness (Case study: Rural areas of Ardabil County, Iran). *Journal of Research & Rural Planning, 11*(1), 81-102.
http://dx.doi.org/10.22067/jrrp.v11i1.2101-1002

Date:
Received: 10-03-2021
Revised: 27-04-2021
Accepted: 04-06- 2021
Available Online: 01-10-2021

Journal of Research and Rural Planning
Volume 11, No. 1, Winter 2022, Serial No. 36, Pp. 103-119
eISSN: 2783-2007 **ISSN: 2783-2791**
http://jrrp.um.ac.ir

Original Article

Challenges of Physical Planning in Iranian Villages with Emphasis on Rural Guidance [Hadi] Plans

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Abstract

Purpose- Basically, one of the physical planning patterns in Iran is the rural guidance [Hadi] plan that has been considered in the path of rural development planning since the victory of the Islamic Revolution of Iran. Preparing and implementing rural guidance [Hadi] plans with more than three decades of experience is one of the most fundamental proceedings is executed to enhance the physical development of Iranian villages. The implementation history of these plans over many periods indicates many challenges in the process of preparing, approving and implementing guidance [Hadi] plans .

Design/methodology/approach- The main purpose of the present study was to analyze the challenges in the process of preparation, approval and implementation. For this purpose, we interviewed 25 individuals who had a background in conducting the guidance [Hadi] plan. Therefore, in this study, the research method was based on qualitative method and was used to analyze the data collected by MAXQDA software .

Finding- The results show that the challenges in the process of preparing the conductor plans are Service description (29.73%), Partnership (33.78%), Organizational and systems (29.73%) and Consultants Characteristics (6.76%). In challenges existing in implementing Guidance [Hadi] plans, 2 main axes are also addressed by the interviewees, including participation and the rules. In the partnership axis, the limited participation of villagers in the implementation of plans with the weight of 100 was more important than other sub-axes. Since the villagers have minimal participation in the two processes of plan preparation and approval, it is, therefore, foreseeable to have limited participation in the process of implementation.

Originality/value- This is significant because for the first time, a study is being conducted at this level on the challenges of preparing and implementing a Rural Guidance [Hadi] Plans. The paper should be of interest to readers in the areas of Middle East & world.

Keywords- Physical planning, Rural Guidance [Hadi] Plan, Rural settlement, Iran.

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How to cite this article:
Anabestani, A., Soleymani, Z. & Ataei, P. (2022). Challenges of Physical Planning in Iranian Villages with Emphasis on Rural Guidance [Hadi] Plans. *Journal of Research & Rural Planning*, *11*(1), 103-119.

http://dx.doi.org/10.22067/jrrp.v11i1.2203-1041

Date:
Received: 10-01-2022
Revised: 10-03-2022
Accepted: 12-04- 2022
Available Online: 01-05-2022

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1. Introduction

Essentially one of the aspects of planning the rural development is physical planning which is related to the design, development and management of the physical environment in accordance with the policies and proposed guide (Alabi & Akinbode, 2010**).** Physical planning for the rural development is considered in many countries (Dandekar, 2015; De Brauw & Rozelle, 2008: 32) due to its importance for land use planning in urban and rural areas to create an efficient and aesthetic space for living, working, jaunt and recreation (Yunusa, 2015). In fact, physical planning is one of the essential aspects of the rural development that strives to create the desired spatial coordination between different human activities to improve the quality of life (Olajuyigbe & Rotowa, 2011; Bojić, 2018). Thus, physical planning includes allocating appropriate uses, providing the right location for proper use, controlling the development, providing facilities, services and public goods, conserving resources and protecting heritage (Oduwaye, 2009).. In this regard, one of the patterns of physical planning in Iran is the Rural Guidance [Hadi] plan, which has been considered in the path of planning the rural development after the victory of the Islamic Revolution (Movlai Hashjin, Ghadiri Masoum & Azizi Demirchloo, 2016). Preparing and implementing Rural Guidance [Hadi] Plan with more than three decades of experience is one of the most fundamental steps taken to enhance the physical development of villages of Iran. Rural Guidance [Hadi] plans were formed in the 1980s based on basic needs strategies (Anabestani, Javanshir & Harati, 2016). It has been running since 1987 with the responsibility of the Housing Foundation of the Islamic Revolution and under the supervision of the Deputy of Rural Development. Guidance [Hadi] Plan is one of the rural projects that are designed and implemented in order to provide the development of rural areas over 10- year period to guide the physical fabric of the villages (Karami Nasab & Mulaii Pardeh, 2018; Azami, Tohidloo & Hazrati, 2016; Housing Foundation of the Islamic Revolution, 2010). 37260 Rural Guidance [Hadi] for villages with more than 20 families, from the beginning until the end of 2018 has been prepared, among 18,629 plans have been implemented (Housing Foundation of the Islamic Revolution, 2010). Generally, the purpose of conducting the Rural Guidance [Hadi] plans in the villages is to provide a platform for rural revitalization and guidance considering physical and economic aspects (Bahrami, 2016; Asghari lafmejani & Masoumi Jashani, 2016) and an attempt to sustain of rural population and reduce rural migration and diversification in terms of the rural area development (Movlai Hashjini, 2007). The findings of researches show that the project has not only maintained rural sustainability but also continued the migration process in many villages, despite the high material and moral costs involved. It has not succeeded either in the spatial dimension or in the arrangement of the physical context and, more importantly, it has not attracted the satisfaction and participation of the villagers (Sojasi Qeidari, 2016; Bahrami, 2016; Anabestani & Akbari, 2012). Therefore, in the present study we tried to investigate what are the most important reasons for the limited success of this plan despite the high costs involved in implementing the Guidance [Hadi] Plan.

2. Research Theoretical Literature

Physical Planning is a design that uses from the land use plan as a framework to propose optimal physical infrastructure for a habitat or area that includes public service infrastructure, transportation, economic, recreational and environmental protection activities (Boano, 2010). In most developing countries, the role of local government in the physical development of rural areas has been neglected, which led to the exclusion of local people from infrastructure planning and physical planning. While in developed countries, local governments and people play an important role in physical planning as well as in national development programs (Alabi & Akinbode, 2010). For example, could point out the physical upgrading of a riverfront habitat in Indonesia which to eliminate physical problems such as unfavorable housing and sidewalk conditions, lack of drinking water and health facilities and waste management facilities, as well as social, economic and the environment issues at the settlement was designed, that the basic instructions of this program are prepared by

the central government and the details of its implementation instructions are specified by the local government authorities (Michiani, & Asano, 2019; Sarwadi, et al., 2001).

2.1. Rural Guidance [Hadi] Plans

The Rural Guidance [Hadi] Plan is a plan that, in addition to organizing and refining the existing texture, determines the extent and location of future expansion and how to use the land for various functions such as residential, commercial, agricultural, rural installations and public needs in the form of approvals of space organization plans and rural settlements and regional master plans (Eftekhari, et al., 2018; Asayesh, 2004: 78). Nowadays, Rural Guidance [Hadi] Plans was the most important rural development management tool in Iran that can play a fundamental role in the comprehensive development of these areas (Azizpour, et al., 2011: 71- 84). In general, the four goals of these plans are:

1. To create context of the rural development according to cultural, economic and social conditions.
2. Equitable provision of facilities through social, productive, welfare facilities.
3. To guide the physical condition of the village.
4. To guide the physical condition of the village.
5. To provide facilities to improve rural housing and environmental and public services. (Asayesh, 2004: 20).

The theoretical origin of the Rural Guidance [Hadi] Plans is the physical planning that has been pursued in Iran since the Islamic Revolution as a result of justice-seeking goals for the villages and is at least unique among neighboring countries and the region (Darabi, 2009: 21).

Therefore, the plan seeks to develop of rural construction, equitable provision of facilities, directing of the physical condition of the villages, providing facilities for improving housing and environmental and public services (Azimi, et al., 2011). And with the participation of the villagers, it the use of the village's abilities and capabilities can lead to improved public amenities and improved of living conditions for the villagers (Anabestani, 2014).

2.2. Process of preparation and implementation of Rural Guidance [Hadi] plan

In general, the process of preparation and implementation of the Rural Guidance [Hadi] plan has a 4-step process including:.

1. Preparatory stage (before preparing the Rural Guidance [Hadi] plan): At this stage, the deputy of the rural development of the Islamic Revolution Housing Foundation of the province, with regard to the credits allocated and existing indicators, selects priority villages for the preparation of the Rural Guidance [Hadi] plan and after some steps is prepared by the project consultant and comes into play after approval.
2. Rural Guidance [Hadi] Plan Preparation stage: This phase begins with the delivery of instructions and recommendations from the employer to the consultant.
3. Approval of Rural Guidance [Hadi] Plan: Before approving the Rural Guidance [Hadi] Plan, prepared plan is presented by the Consultant during a meeting named the Expert Committee, and after the necessary scrutiny the plan has passed the meeting of approval and after expert reviews and the authorities is approved.
4. Implementation of Rural Guidance [Hadi] Plan: After the Communicating of Guidance [Hadi] Plan from the Provincial Government to the governorate and the local authorities, it enters the executive phase (Anabestani & Javanshiri, 2014).

In general, it can be said that numerous researches have been focused on the Rural Guidance [Hadi] plans (Mohammadi, et al., 2016; Asghar Lafmejani & Masoumi Jashani, 2016; Anabestani, et al., 2017; Zarei, 2009; Savari, et al., 2018; Azami, 2016). Howevere, it should be noted that all these researches have focused only on the challenges of one of the Guidance [Hadi] Plan processes. Therefore, in the present study, we have attempted to pay attention all three processes of preparing, approving, and implementing the aforementioned plans and the challenges of exist in these processes.

3. Research Methodology

In this study, we used the method of interviewing with consultants and experts involved in these plans in order to investigate the challenges in Rural Guidance [Hadi] Plan. Snowball sampling was used to identify these consultants and experts. In this way interviewees are identified through social networks or by potential or influential individuals in the research (Robson, 2011; Earl-Babbie, 2013). This process ends when the

information gathering reaches a saturation point and new information and materials are not collected in the interview process (Ashley & Boyd, 2006). In this study, the saturation point was 25 people. The gathering of information and data was a conversation. We decided to use a qualitative Semi-structured questionnaire. In this questionnaire, we asked open-ended questions in three parts: the process of preparing the Guidance [Hadi] Plan, the process of approving the Guidance [Hadi] Plan, and the process of implementing the Guidance [Hadi] Plan. At the discussion sessions, we asked the interviewees to your comments to put forward on the challenges that exist in each of these processes. MAXQDA software was used for data analysis.

4. Research Findings

According to Table 1, it can be said that 66.6% of the interviewees were female that 58.3 percent of them are between 41-50 years of age, and 58.3 percent have a master's degree. Further, 50% of the interviewees between 20-30 years have a background in the Guidance [Hadi] plans, reflecting the full knowledge of the interviewees about the Guidance [Hadi] plans and the challenges of existing in these plans.

Table 1- Features of interviewees

Component	The most	Percentage
Age	41-50 years	58.3
Sex	Female	66.6
Level of Education	Masters	58.3
Background in the field of Guidance [Hadi] Plans	20-30 years	50

4.1. Challenges in the preparing process of Guidance [Hadi] plans

In general, based on the topics discussed by the interviewees, the Challenges in the preparing process of Guidance [Hadi] plans were divided into 4 mains. As shown in Table 2, sub-axes of limited adaptation description of services considered in Guidance [Hadi] plans to the needs of the villagers in axes of the service description, it is more important than other sub-axes. In the participation axis, the sub-axis of the reliance solely of consultants to Rural Islamic Council and Rural Administrator in participation and paying attention of Rural Administrators to your own interests is more important than the other sub-axes. Also at the axis of organizational challenges has more important the sub-axis of the Lack of interoperability and coordination between organizations in the process of preparing Guidance [Hadi] plans. Similarly, in features of Consultants axis, the sub-axis of the lack of sufficient expertise and scientific weakness of consultants is more important than other sub-axes. Most of the interviewees believed that the description of services considered in Guidance [Hadi] plans had a limited adaptation to the physical needs of the villagers, and there is no regard for the economic and social needs of the villagers.

One interviewee emphasized that "The description of the services in the Guidance [Hadi] plans is in line with the physical goals and needs and does not conform the economic, social needs of villagers. Even the physical needs of the villagers is not taken into consideration ideally. Because in the villages, the physical aspects should be taken into account in relation to lifestyle of the villagers (the agricultural and the animal husbandry activities), not a physical that is specific to urban areas. In some villages, it has been observed that despite the implementation of the Guidance [Hadi] plans, the villagers have emigrated from the village while one of the objectives of the Guidance [Hadi] plans is to maintain population sustainability. In general it can be said that the description of services does not conform the needs of the villagers. "

Other challenges were raised by the interviewees included the discussion of the villagers' participation in the process of the Guidance [Hadi] plans. The majority of the interviewees believed that the villager's participation had improved compared to the past, but at the moment it was not satisfactory.

Another major challenge that is noted by the majority of interviewees in the plans preparing process is the lack of interoperability and coordination between organizations.

Table 2- Axes and sub-axes of the process challenges of the preparing

Parent code	Code	Coded segments of all documents	Weight score
Service description	Limited Adaptation description of services to the needs of the villagers	9	100
	Not paying attention to the economic, social needs of the villagers and just paying attention to the physical needs	5	50
	Not matching of service descriptions with the character and lifestyle of the villagers	1	10
	Lack of sufficient explanations of the morphology of the settlement	1	10
	The same services description for all villages, regardless to different village conditions	4	40
	Not being up to date the maps and services description of used in the plans	2	20
Participation	Limited Participation of villagers in the preparing process	5	50
	Limiting rural participation to providing information and emphasizing instrumental participation	1	10
	Reliance solely of consultants to Rural Islamic Council and Rural Administrator in participation and paying attention of Rural Administrators to your own interests	6	60
	The lack of positive attitude of the authorities towards the participation of the villagers	1	10
	Limited visibility of Guidance [Hadi] plans to rural participation	1	10
	Inadequate follow-up of the fourth factor to Supervision the consultant's work in attracting of participation villagers	2	20
	Insufficient awareness of villagers about Guidance [Hadi] plans	2	20
	The lack of cooperation of local managers and the unwillingness of villagers to implement these plans and the pessimism of villagers to these plans`	2	20
	Lack of attention of some consultants to existing clauses regarding the participation of villagers	5	50
Organizational challenges	Lack of interoperability and coordination between organizations in the process of preparing Guidance [Hadi] plans	7	70
	Lack of coordination of the organizations to provide data and information	3	30
	Housing Foundation not paying attention to sustainable rural development in the process of Guidance [Hadi] plans	1	10
	Lack of participation of some rural organizations	1	10
	Finance weak of Housing Foundation	1	10
	The parallelism of organizations	2	20
	Pay attention to organizational interests and priorities	1	10
	The lack of a ministry to handle village affairs	1	10
	Different views and opinions of organizations about the village	2	20
	Prolongation the preparation process until the implementing process of plans	1	10
	Lack of specific rules and regulations for rural affairs	1	10
	Use of urban rules for most rural affairs	1	10
Features of Consultants	Insufficient age, experience and skills of consultants to attracting of participation of villagers	1	10
	Lack of sufficient expertise and scientific weakness of consultants and being alien to villagers' lives and activities	4	40

Overall, based on the content provided by the interviewees, it must be noted that the focus of participation Axis by 33.78 percent is one of the major challenges in the process challenges of the preparing of Guidance [Hadi] plans. Indeed, the participation of people in the process of the preparing of Guidance [Hadi] plans is very limited and the consultants do not try to attract public participation (Table 3).

Table 3- Frequency and Axes Percentage of the process challenges of the preparing

Challenges of preparing Process	Segments	Percentage
Service description	22	29.73
Participation	25	33.78
Organizational challenges	22	29.73
Features of Consultants	5	6.76
Sum	74	100

Figure 1 illustrates the relationship between axes and sub-axes of the process challenges of the preparing of Guidance [Hadi] plans:

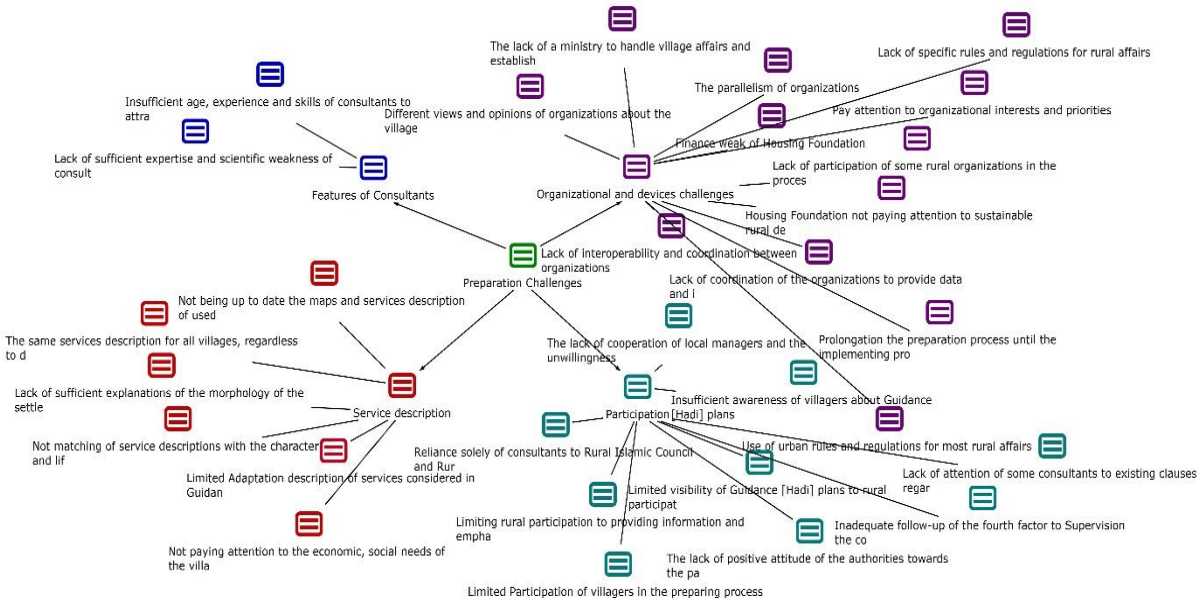


Figure 1- Axes and sub-axes of the process challenges of the preparing

4.2. Challenges existing in the process of approving Guidance [Hadi] plans

Based on the issues considered by the interviewees, the main axes of the process challenges of the approving of Guidance [Hadi] plans are divided into 4 categories. In People's opinions and priorities axis have the sub-axis of limited attention to people's opinions and priorities at approving technical committee meetings, more important. At the axis of the participation, presence without the right of a voter Rural Islamic Council and Rural Administrator in meetings has a higher importance. Likewise, in terms of sub-axis not having enough expertise in the Rural Administrator in axis of Features of Rural Administrator, and in the axis organizational and devices challenges, sub-axis of lack of coordination and interaction between organizations are more important in the than other axes (Table 4).

In general, one of the challenges that many interviewees acknowledged in the process of approving Guidance [Hadi] plans is the lack of attention to the opinions and priorities of people in technical committee meetings. According to the majority of the interviewees, due to differences in the attitudes of the present authorities at the meetings of the Technical Committee on villages,

the existence of restrictive laws and regulations and sometimes the non-compliance of the needs and priorities of the people with existing regulations, leads to insufficient attention to the needs and priorities of the villagers.

Another major challenge to be mentioned by many interviewees is the lack of voting rights of the Rural Administrators in the technical committee meetings, while the main beneficiaries of these plans are the people and their representatives (Rural Islamic Council and Rural Administrator). Lack of coordination and interoperability of the devices at the plan approval stage is another major challenge mentioned by all interviewees, and everyone acknowledged that this lack of coordination and collaboration of organizations created major obstacles in the process of plans and they have the effect to reducing the quality of the plans.

Table 4- Axes and sub-axes of the process challenges of the approving

Parent code	Code	Coded segments of all documents	Weight score
People's opinions and priorities	Limited attention to people's opinions and priorities at approving technical committee meetings	7	70
	Being personal of some opinions and disregard for the general interests of the village	1	10
	Contrast some of people's opinions and priorities with rules and regulations	6	60
Participation	Presence without the right of a voter Rural Islamic Council and Rural Administrator in meetings	5	50
	Absence of representative from different classes and activities of the village in meetings	1	10
Features of Rural Administrator	Not having enough expertise in the Rural Administrator	4	40
	Having a local vision of the Rural Administrator and attention to their own interests	3	30
	The inability of the Rural Administrator to defend the views and priorities of the people in the technical committee meetings	1	10
	Lack of interaction Rural Administrator with the villagers and lack of right understanding of the villagers' needs	1	10
Organizational and devices challenges	Lack of coordination and interaction between organizations in the approval process	10	100
	Inadequate efforts of organizations to achieve interaction and coordination	8	80
	Different views of devices about the villages	2	20
	Lack of right understanding of the present representatives at the meetings regarding the village	2	20
	The absence of some village-related organizations such as the Environment organizations	1	10
	Existence restrictive laws and regulations	1	10
	Have a profitable view of representatives of different organizations to the plans	4	40
	To be long and delay in responding to inquiries from organizations and no presentation the inquiries in suitable time	5	50
	To be long of administrative process of getting inquiries from different organizations	1	10
	Impose high costs to the consultant for Presentation of inquiries answer	3	30
	Lack of attention some organizations to the sustainable development of villages	1	10
	Lack of support of the Housing Foundation from consultants at technical committee meetings	1	10
	No prioritize solving problems of existent in the village for some of the organizations of present at the meetings	3	30
	Lack of flexibility of plans	1	10
	Top-down attitude in plans	1	10

Overall, according to Table 5, from the point of view of the interviewees, organizational and device challenges with 60.27% are the most important challenges in the process of the approving of Guidance [Hadi] plans (Table 3).

Table 5- Frequency and Axes Percentage of the process challenges of the approving

Challenges of approving Process	Segments	Percentage
People's opinions and priorities	14	19.18
Participation	6	8.22
Features of Rural Administrator	9	12.33
Organizational challenges	44	60.27
Sum	73	100

Figure 2 illustrates the relationship between axes and sub-axes of the process challenges of the approving of Guidance [Hadi] plans:

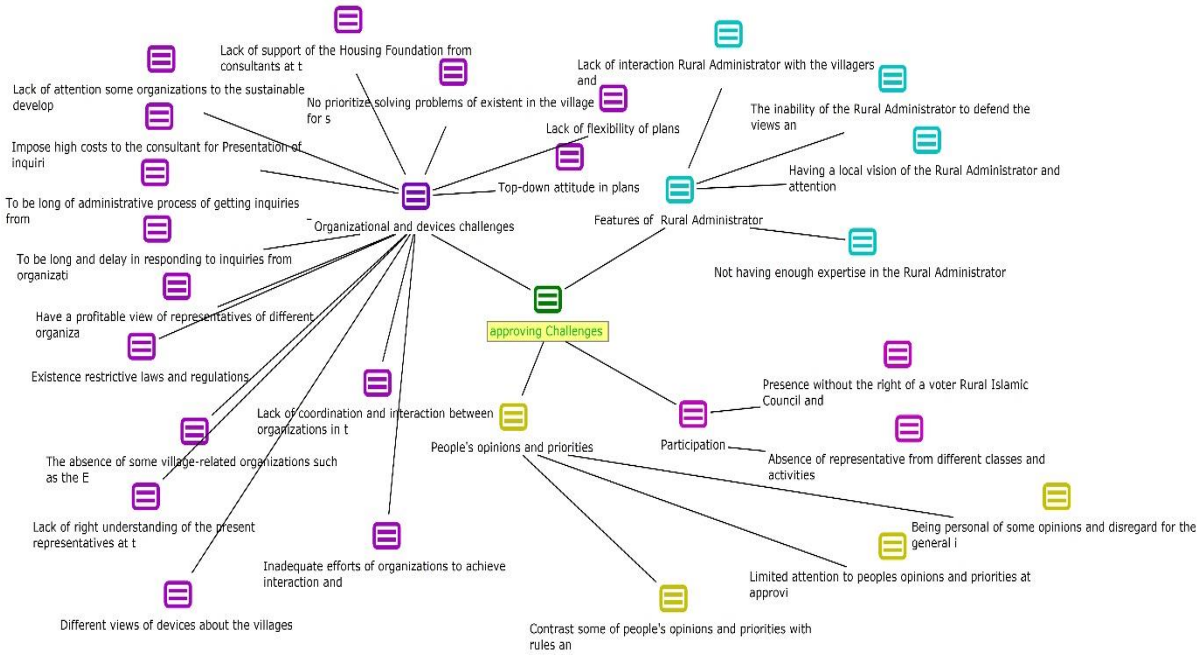


Figure 2- Axes and sub-axes of the process challenges of the approving

4.3. Challenges existing in the process of implementing Guidance [Hadi] plans

Generally, based on Table 6 can be said that the Axes of the process challenges of the implementing of the plans include two axes. In the axis of participation the sub-axis of limited participation of villagers in plants implementing and in axis rules and regulations, limited to opening the main passages of the village and no adaptation of approved plans with implemented plans for the interviewees, they are more important.

One of the major challenges in the implementation process of the Guidance [Hadi] plans mentioned by many interviewees was the lack of adaptation of approved plans with the implemented plans and most interviewees acknowledged that in many villages the implementation of the plans was limited to the opening of the main passages of the villages.

"In some villages after 10 years of review there has been no change and in some villages only the main passages have been opened**".**

Another important challenge highlighted by the interviewees with various implications is the limited cooperation and participation of villagers in the plans implementation process. They said

that if there is a partnership, more is instrumental participation.
"Since people do not have an effective role in the process of preparing and approving plans, cannot expect to be involved in the implementation process. These participations are more limited to instrumental and financial participations that have to provide 30 percent of their land to the service sector. "

Table 6- Axes and sub-axes of the process challenges of the implementing

Parent code	Code	Coded segments of all documents	Weight score
Participation	Limited participation of villagers in plants implementing	5	100
	Restrict villager's participation to financial participation	3	30
	Unauthorized construction by villagers	3	30
	Lack of cooperation and supervision of Rural Administrator	2	20
	Lack of cohesion and coordination among villagers in the implementation of plans	1	10
	Lack to follow the villagers and Rural Administrator	1	10
	Inadequate awareness of villagers about existing rights and laws	2	20
	People's over-dependence on government	1	10
	People's negative view to Guidance [Hadi] plans	1	10
Rules and regulations	Inconsistency of the executor of plan with the Rural Islamic Council and Rural Administrator	1	10
	No forecast executive leverage for Rural Administrator to prevent unauthorized construction	2	20
	Plans limited to opening the main passages of the village	4	40
	Inadequate appropriations credits for implementation of plans	3	30
	No mandatory rules for villagers who do not participate in the plans	1	10
	Low ability, expertise and power of attention of the executor of plan	1	10
	No adaptation of approved plans with implemented plans	4	40
	Prolongation the preparation process until implemented the plans	2	20
	Restricted use of the Housing Foundation from specialists in universities	1	10
	Not paying attention to problems existing in review plans	1	10
	Lack review of plans periodically	1	10

Table 7 indicates that the participation index with 52.5% is the most significant challenge in the process of implementing the Guidance [Hadi] plans. Rules and regulations axis also place in ranks second with 19% (Table 7).

Table 7- Frequency and Axes Percentage of the process challenges of the implementing

Challenges of the Guidance [Hadi] plans implementing Process	Segments	Percentage
Participation	21	52.5
Rules and regulations	19	47.5
Sum	40	100

Figure 3 illustrates the relationship between axes and sub-axes of the process challenges of the implementing of Guidance [Hadi] plans:

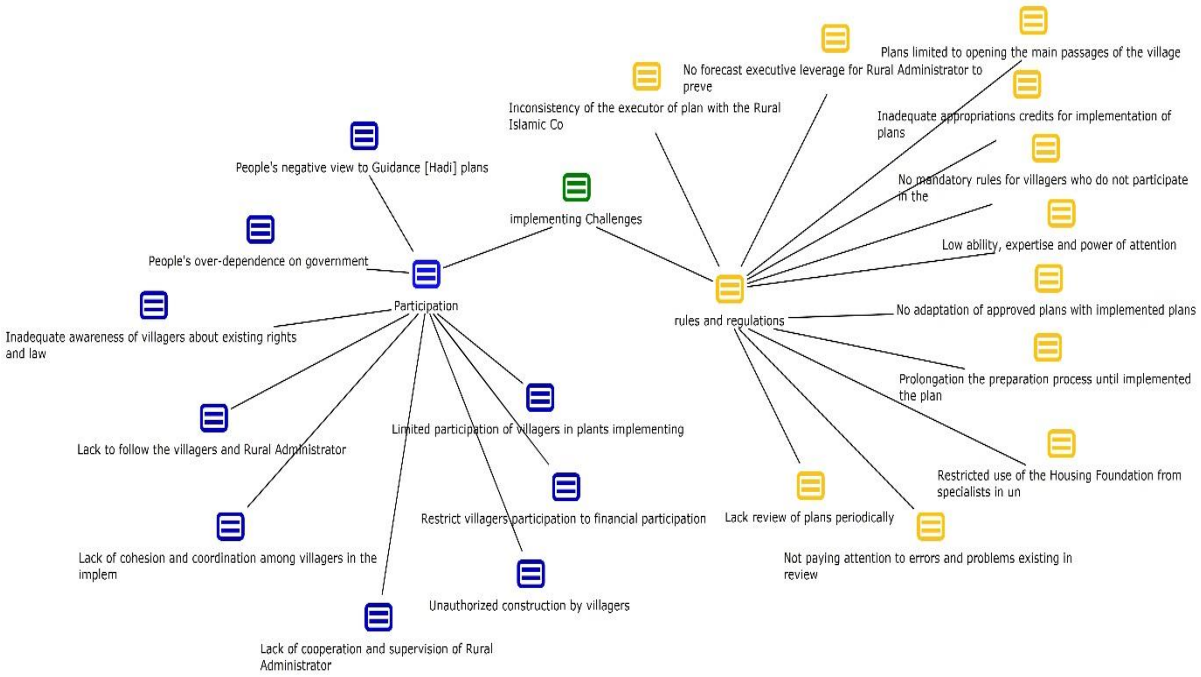


Figure 3- Axes and sub-axes of the process challenges of the implementing

5. Discussion and Conclusion

Overall, it can be said that Guidance [Hadi] plans have three general processes of preparing, approving and implementing, each of which has its own challenges. Based on the material presented by the interviewees in the preparing process of the Guidance [Hadi] plans, four key challenges were mentioned, which in the service description axis, the Limited Adaptation description of services considered in Guidance [Hadi] plans to the needs of the villagers with 100 weight had more important than other sub-axes. In this case, it should be noted that since these plans are designed to improve the situation of the villagers, it is therefore essential that the objectives and description of the services of these plans match totally with the needs of the villagers. At the axis of the participation has greater importance the reliance solely of consultants to Rural Islamic Council and Rural Administrator in participation and paying attention of Rural Administrators to your own interests by gaining 60 weights. It should be noted that in projects that are organized for the people, maximizing people's participation could have a significant impact on the success of the project's implementation and cost reduction. Research by Anabestani and Mousavi (2017) indicates that in many villages, public participation is limited in the process of preparing and approving Guidance [Hadi] plans, which is in line with the results of the present study. Given the importance of participation for the success of community-based plans, it is necessary to understand the factors that may limit participation in community-based plans (Jaafar et al., 2020; Pattnaik & Lahiri-Dutt, 2020; Roman & Ruiters, 2020). Qian et al. (2020) believed that there are two potential factors that may impact participation. The factors that could affect participation in community-based plans are social ties within the rural and geographic proximity. Likewise, for the interviewees in axis of organizational and device challenges, the lack of interoperability and coordination between organizations in the process of preparing Guidance [Hadi] plans is more important with 70-weight than other sub-axes. In fact, these interactions not only accelerate the process of plans preparing but can also solve more dimensions of the problems of the villagers. Also at the features of Consultants axis, lack of sufficient expertise and scientific weakness of consultants and being alien to villagers' lives and activities is the most important sub-axis that has gained 40 weight. Lack of sufficient expertise of consultants has a serious impact on reducing the quality of the Guidance [Hadi] plans and wasting financial resources. Overall, the participation axis

with 33.7% is as the most important challenge of the Guidance [Hadi] plans in preparing process than other axes, indicating the importance of participation in these plans.

To examine the challenges associated with the approval process, the interviewees identified four main challenges that in people's opinions and priorities axis, limited attention to people's opinions and priorities at approving technical committee meetings has been introduced as the most important with weight of 70. Since the main beneficiaries of these plans are the villagers, therefore, the most attention to the public opinion should be a priority for the Guidance [Hadi] plans approvers. Gómez-Quintero et al. (2019), Piwowar (2020) concluded that the opinions of the villagers can make the rural projects more successful. Also in the participation axis, the unenforceable presence without the right of a voter Rural Islamic Council and Rural Administrator in meetings has been identified as the most important challenge on this axis, with 50 weights. In fact, Rural Administrator is the sole representative of the villagers in the Guidance [Hadi] plans approving meetings. The villagers who are the main beneficiaries of these plans, therefore not having the right to vote isn't fair and reasonable. In the axis organizational challenges, the lack of coordination and interaction between organizations in the approving process with the weight of 100 has been the most important challenge in this field. This lack of interaction and coordination was also identified as one of the important challenges of the preparing process, which actually demonstrates the importance of this interaction. Munoler & Ouellet (2017), Živojinović et al. (2019), Sánchez (2019) mentioned that understanding the role of rural planning is especially complicated in unstable institutional environments, e.g. in developing countries and countries in transition. The most important challenge in the axis of features of Rural Administrator is the insufficient expertise, which has a weight of 40. Insufficient expertise of Rural Administrator leads to can't defend legally from the interests of the people. This factor not only affects the dissatisfaction of the people but can also reduce the participation of the villagers because the people's interests are not considered. Overall, organizational and device challenges with 60.27 percent were identified by interviewees as the most important challenge in the process of approving Guidance [Hadi] plans.

In challenges existing in the process of implementing Guidance [Hadi] plans, 2 main axes are also addressed by the interviewees, which include participation and the rules. In the partnership axis, the limited participation of villagers in the implementation of plans with weight of 100 was more important than other sub-axes. Since the villagers have minimal participation in the two processes of plans preparing and approving, it is therefore foreseeable to have a limited participation in the process of implementing. The research conducted by Anabestani et al. (2018) and Savari et al. (2018) on the participation of villagers in the implementing of Guidance [Hadi] plans is in line with the results of the research. Also in axis rules and regulations, the two sub-axes limited to opening the main passages of the village and no adaptation of approved plans with implemented plans are more important than other sub-axes with weight of 40. These two challenges can be said to be the result of challenges existing in previous processes. Qu et al. (2020), Jia et al. (2020) stated that a useful rules and regulations can be available for the functional orientation of rural areas, development plans, implementation of rural management policies and transformation. Furthermore, Yang et al. (2020) illustrated that comprehensive rules and regulations can improve rural production and living environment, and while activate the idle land resource in rural and coordinate the rural and urban development. Limited to opening the main passages of the village and no adaptation of approved plans with implemented plans can at least be the result of the limited participation of villagers and the inadequate expertise of the consultants in the plan preparing process. In the research conducted by Anabestani and Akbari (2012), they have reached the conclusion that the greatest impact of the Guidance [Hadi] plans was on the reopening and renovation of the rural passage network, which is in line with the results of this study. Overall, participation axis with 52.5% is considered as the most important challenge in the process of implementing the Guidance [Hadi] plans.

It can be said that the Guidance [Hadi] plan is one of the most important local planning that was specifically designed for the development and growth of villages in Iran after the victory of the

Islamic Revolution. The background of the preparing and implementing of Guidance [Hadi] Plans indicates that the process of preparing, approving and implementing these plans is not without challenges. Therefore, in the present study, we attempted to analyze the challenges of the process of preparing, approving and implementing Guidance [Hadi] Plans. Therefore, we interviewed 25 people who had a background in designing these plans. The results showed that there are many challenges in the processes of preparing, approving and implementing these plans. In the process of preparing, four general challenges include description of services, participation, organizational and devices challenges and features of consultants. In the approval process, people's opinions and priorities, participation, features of Rural Administrator and organizational and devices challenges have been identified as key challenges. In the process of implementing, two challenges of participation and the rules and regulations are mentioned by the interviewees. Overall, if the challenges of the process of preparing and approving these plans are eliminate, they can achieve to their goals and be successful in implementing, which in turn will address the challenges of the implementing process. Therefore, it is necessary for the planners and policymakers involved in these plans to consider the following in order to achieve the desired results:

- Serious attention to the concept of sustainable development in the plans.
- Creating a coherent system of thought in the field of rural development and the plans.
- Getting help from Rural Planning Specialists in universities.
- Pay attention to the problems in the previous implemented plans.
- Attempting to maximize the participation of villagers in all the process of the plans
- Pay attention to the lifestyle and livelihood of the villagers and Implementation of plans in accordance with the environmental and livelihoods conditions of the villagers.

The following can be suggested for future research:

- To conduct a qualitative study on the way planners of Guidance [Hadi] plans think about rural participation
- Comparison of other rural plans with Guidance [Hadi] plans in the field of successful in implementation
- To investigate and analyzing the views of main planners and designers Guidance [Hadi] plans on rural and their impact on plans outputs.

Acknowledgments: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

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Journal of Research and Rural Planning
Volume 11, No. 1, Winter 2022, Serial No. 36, Pp. 103-119
eISSN: 2783-2007 **ISSN: 2783-2791**
http://jrrp.um.ac.ir
Original Article

چالش های برنامه‌ریزی کالبدی در روستاهای ایران با تاکید بر طرح‌های هادی روستایی

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چکیده مبسوط

۱.مقدمه

هدف از اجـرای طرح‌هـای هـادی در روسـتاهای کشـور، سـاماندهی کالبدی روستاها و نظم‌دهی به کلیه فعالیت‌هایی است کـه در سـطح روستاها صورت می‌پذیرد، فراهم کردن بستر تجدید حیات و هـدایت روستا با درنظرگرفتن جنبه‌های کالبدی و اقتصـادی و تلاشـی بـرای مانـدگاری جمعیـت روسـتایی و کـاهش مهاجرت‌هـای روسـتایی و تنوع‌بخشی از نظر توسعه یافتگی به فضای روستاها طراحـی و انجـام گرفته‌است. اما یافته‌های محققان نشـان می‌دهـد کـه ایـن طـرح در بسیاری از روستاها با وجود هزینـه‌های مـادی و معنـوی زیـادی کـه به‌کار رفته است در بسیاری از مـوارد نتوانسـته اسـت بـه پایـداری روستایی کمک نموده و روند مهاجرتی همچنـان ادامـه دارد. لـذا در پژوهش حاضر سعی ما بر این است تا بررسـی نمـاییم کـه بـا وجـود هزینه‌های زیادی که برای اجرای طـرح هـادی در روسـتاهای ایـران انجام گرفته مهمترین دلایل موفقیت محدود این طرح چیست؟

۲. مبانی نظری تحقیق

برنامه‌ریزی کالبدی یک طراحـی اسـت کـه در آن از برنامـه کـاربری زمین به عنـوان چـارچوبی بـرای پیشـنهاد زیرسـاخت‌های کالبـدی مطلوب برای یـک سـکونتگاه یـا منطقـه اسـتفاده می‌شـود کـه ایـن زیرساخت‌ها شامل زیرسـاخت‌های خـدمات عمـومی، حمـل و نقـل، فعالیت‌های اقتصادی، تفریحی و حفاظت از محیط زیست می‌شود. در بیشتر کشـورهای در حـال توسـعه، نقـش دولـت محلـی در توسـعه کالبدی روستاها نادیده گرفته شده است، کـه همـین امـر منجـر بـه حذف مردم محلی از برنامه‌ریزی زیرساخت‌ها و برنامـه‌ریزی کالبـدی شده است. به طور کلی می توان گفت که در زمینه طرح های هـادی روستایی پژوهش‌های متعددی انجام شده است. اما باید اشاره کرد که همه این پژوهش ها فقط بر چالش‌های یکی از فرایندهای طرح هادی متمرکز شده اند که اکثریت آنها بر فرایند اجرا و چالش های موجـود در آنها پرداخته اند. اما ما در پژوهش حاضر سعی کردیم بر هـر سـه فرایند تهیه، تصویب و اجرای طرح های مذکور و چالش های موجود در این فرایندها را مورد توجه قرار دهیم.

۳. روش تحقیق

در این پژوهش به منظور بررسی چالش‌هـای موجـود در طـرح هـای هادی روستایی، از روش مصاحبه با مشاوران و کارشناسانی که در این طرح ها حضور داشتند، اسـتفاده کـردیم. بـه منظـور شناسـایی ایـن مشاوران و کارشناسان از روش نمونه‌گیری گلوله برفی استفاده شـده است. در این روش مصاحبه‌شوندگان از طریق شبکه‌های اجتماعی یـا توسط اشخاص افراد بالقوه یا موثر در پژوهش شناسایی می‌شوند. این فرایند زمانی به پایان می‌رسد که جمع‌آوری اطلاعات به نقطه اشـباع برسد و اطلاعات و مطالب جدیـدی در فراینـد مصـاحبه جمـع آوری نشود. در این پژوهش نقطه اشباع ۲۵ نفر بود. درنهایت براساس نتایج حاصل از مصاحبه‌ها، چالش‌های موجود در هر یک از بخش‌های تهیه، تصـویب و اجـرای طرح‌هـای هـادی اسـتخراج شـد. از نـرم افـزار MAXQDA به منظور تجزیه و تحلیل اطلاعات مورد اسـتفاده قـرار گرفت.

۴. یافته‌های تحقیق

نتایج پژوهش نشان می دهد که در فراینـد تهیـه طـرح هـای هـادی چالش های شرح خـدمات (۲۹/۷۳٪)، مشـارکت (۳۳/۷۸٪)، چـالش های سازمانی و دستگاه ها (۲۹/۷۳) و ویژگی های مشاوران (۶/۷۶٪)، در فراینـد تصـویب نیـز نظـرات و اولویـت هـای مـردم (۱۹/۱۸٪)، مشـارکت (۸/۲۲٪)، ویژگـی هـای دهیـار (۱۲/۳۳٪) و چالش‌هـای

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سازمانی و دستگاه‌ها (۶۰/۲۷٪) و همچنین در فرایند اجرا چالش مشارکت (۵۲/۵٪) و ضوابط و مقررات (۴۷/۵٪) به عنوان چالش های اساسی محسوب می شوند.

۵. بحث و نتیجه‌گیری

طرح هادی یکی از مهمترین برنامه ریزی های محلی است که بعد از پیروزی انقلاب اسلامی به طور خاص برای توسعه و رشد روستاهای ایران طراحی شده است. در تعریف طرح مذکور آمده است که به دنبال تجدید حیات و هدایت روستا به لحاظ ابعاد اقتصادی، اجتماعی و فیزیکی روستا می باشد. به طورکلی تهیه و اجرای طرح‌های هادی روستایی نزدیک چهار دهه سابقه دارد. سابقه تهیه و اجرای طرح های هادی بیانگر این می باشد که فرایند تهیه، تصویب و اجرای این طرح‌ها بدون چالش و مساله نمی‌باشد. لذا در پژوهش حاضر تلاش کردیم که چالش‌های موجود در فرایند تهیه، تصویب و اجرای طرح های هادی را مورد تحلیل و بررسی قرار دهیم. از این رو با ۲۵ نفر که سابقه فعالیت در تهیه این طرح‌ها دارند، به مصاحبه پرداختیم. نتایج پژوهش نشان می‌دهد که چالش‌های متعددی در فرایندهای تهیه، تصویب و اجرای این طرح‌ها وجود دارد. در فرایند تهیه ۴ چالش کلی شامل شرح خدمات، مشارکت، چالش های سازمانی و دستگاه ها و ویژگی های مشاوران می باشد. در فرایند تصویب نیز نظرات و اولویت های مردم، مشارکت، ویژگی های دهیار و چالش‌های سازمانی و دستگاه‌ها به عنوان چالش‌های اساسی مطرح شده اند و همچنین در فرایند اجرا به ۲چالش مشارکت و ضوابط و مقررات توسط مصاحبه شوندگان اشاره شده است.

کلیدواژه‌ها: برنامه‌ریزی کالبدی، طرح هادی روستایی، سکونتگاه روستایی، ایران.

تشکر و قدردانی

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

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How to cite this article:
Anabestani, A., Soleymani, Z. & Ataei, P. (2022). Challenges of Physical Planning in Iranian Villages with Emphasis on Rural Guidance [Hadi] Plans. *Journal of Research & Rural Planning*, *11*(1), 103-119.

http://dx.doi.org/10.22067/jrrp.v11i1.2203-1041

Date:
Received: 10-01-2022
Revised: 10-03-2022
Accepted: 12-04- 2022
Available Online: 01-05-2022

فهرست مندرجات

عنوان	صفحه
■ نئولیبرال سازی، جداشدگی‌ها و بحران‌های زیست‌محیطی- با تأکید بر بحران اکولوژیکی دریاچه ارومیه، ایران علی اکبر تقیلو، ناصر سلطانی	(۲۰-۱)
■ سطح بندی چالش های کسب و کار خانگی در نواحی روستایی شهرستان ساری با کاربرد تکنیک ترکیبی DEMATEL-ISM زهرا شریفی نیا	(۴۰-۲۱)
■ طراحی مدل معادلات ساختاری امکان‌سنجی توسعه گردشگری روستایی (مطالعه موردی: روستای گایکان شهرستان الیگودرز) سارا زلقی، علی امیری، حوریه مرادی	(۵۸-۴۱)
■ واکاوی عملکرد مدیریت نوین روستایی مبتنی بر رویکرد حکمروایی خوب (مورد مطالعه: روستاهای بخش مرکزی شهرستان کرج) میلاد محمدی، حسن افراخته، فرهاد جوان	(۷۹-۵۹)
■ تحلیل پیشران‌های مؤثر توسعهٔ متوازن ناحیه ای بر مبنای رقابت‌پذیری محلی (مورد مطالعه: نواحی روستایی شهرستان اردبیل) علیرضا محمدی، محمد جواد عبّاسی، آذر نوری	(۱۰۲-۸۱)
■ چالش های برنامه‌ریزی کالبدی در روستاهای ایران با تاکید بر طرح‌های هادی روستایی علی‌اکبر عنابستانی، زهرا سلیمانی، پوریا عطائی	(۱۱۹-۱۰۳)

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

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

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

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

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

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

۱۵. دریافت مقاله صرفاً از طریق سامانه مجله (http://jrrp.um.ac.ir) خواهد بود و مجله از پذیرش مقالات دستی یا پستی معذور خواهد بود.

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

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

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

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

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

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

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

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

کد پستی: ۹۱۷۷۹۴۸۸۸۳ تلفن و نمابر: ۰۵۱-۳۸۷۹۶۸۴۰ پست الکترونیکی Rplanning@um.ac.ir

وب سایت: http://jrrp.um.ac.ir/

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

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

نشانی: ..... کدپستی: .....

شرایط پذیرش مقاله

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

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

۲ . مقالات انگلیسی با قلم نازک Times New Roman11 با نرم افزار Word تهیه شود. مقالات، روی کاغذ A4 (با حاشیه از بالا ۳ و پایین ۲ و راست ۲ و چپ ۲ سانتی‌متر) تایپ شود. متن به صورت دو ستونی با رعایت فاصله ۱ سانتی‌متر بین دو ستون و فواصل بین خطوط به صورت single باشد. ۳ . حجم مقاله نباید ازحدود ۹۵۰۰ کلمه و یا حداکثر ۱۵ صفحهٔ چاپی به قطع نشریه بیشتر باشد (با در نظر گرفتن محل جداول، اشکال، خلاصه فارسی و فهرست منابع).

۴ . عنوان مقاله با در نظرگرفتن فواصل بین کلمات نباید از ۶۰ حرف تجاوز کند و با قلم Times New Roman14 سیاه تایپ شود.

۵ . نام نویسندهٔ مقاله با قلم سیاه Times New Roman10 عنوان علمی یا شغلی او با قلم Times New Roman10 در زیر عنوان مقاله ذکر شود. ضمناً آدرس الکترونیکی و شماره تلفن نویسندهٔ مسؤول در پاورقی آورده شود.

۶ . چکیدهٔ مقاله ساختاریافته با قلم نازک Times New Roman 11 به صورت تک ستونی باشد.

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

۸ . ساختار مقاله شامل عناصر زیر است:

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

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

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

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

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

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

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

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

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

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

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

نمونه فارسی:

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بسم الله الرحمن الرحيم

دانشکده ادبیات و علوم انسانی

مجلّهٔ پژوهش و برنامه‌ریزی روستایی

سال یازدهم، شمارهٔ ۱، زمستان ۱۴۰۰، شمارهٔ پیاپی ۳۶

صاحب امتیاز: دانشگاه فردوسی مشهد
مدیر مسئول: دکتر حمید شایان
سردبیر: دکتر علی‌اکبر عنابستانی

هیئت تحریریه (به ترتیب حروف الفبا) :

کریستوفر برایانت	استاد برنامه‌ریزی روستایی و توسعه (دانشگاه مونترال کانادا)
خدیجه بوزرجمهری	دانشیار جغرافیا و برنامه‌ریزی روستایی (دانشگاه فردوسی مشهد)
سعید پیراسته	دانشیار جغرافیا و مدیریت محیطی (دانشگاه واترلو کانادا)
جعفر جوان	استاد جغرافیای روستایی (دانشگاه فردوسی مشهد)
محمدرضا رضوانی	استاد جغرافیا و برنامه‌ریزی روستایی (دانشگاه تهران)
عبدالرضا رکن‌الدین افتخاری	استاد جغرافیا و برنامه‌ریزی روستایی (دانشگاه تربیت مدرس)
عباس سعیدی	استاد جغرافیای روستایی (دانشگاه شهید بهشتی)
حمید شایان	استاد جغرافیای روستایی (دانشگاه فردوسی مشهد)
سید اسکندر صیدایی	دانشیار جغرافیا و برنامه‌ریزی روستایی (دانشگاه اصفهان)
علی عسگری	دانشیار مدیریت بحران (دانشگاه یورک کانادا)
علی‌اکبر عنابستانی	استاد جغرافیا و برنامه‌ریزی روستایی (دانشگاه فردوسی مشهد)
آنا فرمینو	استاد جغرافیا و برنامه‌ریزی منطقه‌ای (دانشگاه لیسبون جدید پرتغال)
مجتبی قدیری معصوم	استاد جغرافیای روستایی (دانشگاه تهران)
دو–چول کیم	استاد مدیریت محیط زیست روستایی (دانشگاه اوکایاما ژاپن)
سیدحسن مطیعی لنگرودی	استاد جغرافیای روستایی (دانشگاه تهران)

مقالات نمودار آرای نویسندگان است و به ترتیب وصول و تصویب درج می‌شود.

دستیار سردبیر: مهدی جوانشیری
مدیر اجرایی: زهرا بنی‌اسد
ویراستار انگلیسی: مرکز ویراستاری ادبیات
حروف‌نگاری و صفحه‌آرایی : الهه تجویدی
شمارگان: ۵۰ نسخه

نشانی: مشهد، دانشگاه فردوسی مشهد، دانشکدهٔ ادبیّات و علوم انسانی دکتر علی شریعتی، کد پستی ۹۱۷۷۹۴۸۸۸۳ ، نمابر: ۳۸۷۹۶۸۴۰ (۰۵۱)
بها: داخل کشور: ۲۰۰۰۰۰ ریال (تک‌شماره) خارج کشور: ۲۵ دلار (آمریکا– سالانه)، ۲۰ دلار (سایر کشورها– سالانه)
درگاه الکترونیکی: http://jrrp.um.ac.ir/ E-mail:Rplanning@um.ac.ir

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

این مجلّه در پایگاه های زیر نمایه می‌شود:

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

دانشگاه فردوسی مشهد

JRRP

مجله پژوهش و برنامه ریزی روستایی

سال یازدهم، شماره ۱، زمستان ۱۴۰۰، شماره پیاپی ۳۶

■ **نئولیبرال سازی، جداشدگی‌ها و بحران‌های زیست‌محیطی- با تأکید بر بحران اکولوژیکی دریاچه ارومیه، ایران** ۱

علی اکبر تقیلو، ناصر سلطانی

■ **سطح بندی چالش های کسب و کار خانگی در نواحی روستایی شهرستان ساری با کاربرد تکنیک ترکیبی DEMATEL-ISM** ۲۱

زهرا شریفی نیا

■ **طراحی مدل معادلات ساختاری امکان‌سنجی توسعه گردشگری روستایی (مطالعه موردی: روستای گایکان شهرستان الیگودرز)** ۴۱

سارا زلقی، علی امیری، حوریه مرادی

■ **واکاوی عملکرد مدیریت نوین روستایی مبتنی بر رویکرد حکمروایی خوب (مورد مطالعه: روستاهای بخش مرکزی شهرستان کرج)** ۵۹

میلاد محمدی، حسن افراخته، فرهاد جوان

■ **تحلیل پیشران‌های مؤثر توسعهٔ متوازن ناحیه ای بر مبنای رقابت‌پذیری محلی (مورد مطالعه: نواحی روستایی شهرستان اردبیل)** ۸۳

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■ **چالش های برنامه‌ریزی کالبدی در روستاهای ایران با تاکید بر طرح‌های هادی روستایی** ۱۰۳

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شاپا: ۲۷۹۱-۲۷۸۳