An Explanation of Entrepreneurship Drivers and Rural Competitiveness Functions

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Abstract

To achieve spatial dynamics and dynamism in the age of globalization, entrepreneurship and competitiveness are inevitable. Due to the fact that cities are the focal pints of development and spatial evolution, it is crucial to pay attention to rural areas regarding this matter to prevent recession and spatial isolation of them. Adopting a "descriptive-analytical" methodology and applied targeting, this research attempted to explain and identify rural entrepreneurship drivers and competitiveness functions as the motor of spatial development in Cheshmeh Saran rural area in Azadshahr county, Golestan. Data collection has been done quantitatively and qualitatively by survey method and statistical data. The sample population in the qualitative section was the members of the Islamic Council and the village officers. Exploratory Factor Analysis (EFA) was used to identify the explanatory drivers of entrepreneurship; and correspondence analysis was used to identify the competitiveness functions of rural areas in Cheshmehsaran. The results show that there are five drivers of rural entrepreneurship, including economic, entrepreneurial context, infrastructure, social capital and knowledge, in Cheshmeh Saran with a data variance of 74%. The result of EFA indicates that Farsian, Kashidar, Vamnan and Vatan villages have the potential of entrepreneurship. The entrepreneurial contexts and opportunities of each village are different. Some of the options that improve combativeness in the rural areas of Cheshmeh Saran are saffron, herbs, poultry, wood industry and tourism. These competitiveness functions were identified according to the special expertise of each village. However, the presence of entrepreneurs in Vamnan and Farsian villages made them more likely to improve competitiveness than Sousra and Vatan villages.

Keywords: Entrepreneurship, competitiveness, specialized function, Cheshmeh Saran.

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Introduction

In the era of globalization, the most important drivers of development and spatial dynamics, which improve excellence and progress, are depicted in the form of competitiveness and the existence of its foundations in the spatial boundaries (Harpa, 2017). Competitiveness, which is mainly an economic concept, has been considered as an indicator of spatial dynamics and development in the context of global economic convergence, and cities and geographical areas can strengthen their development foundations in order not to lag behind the development process and continue their physical and spatial dynamics and development (Hong, 2009: 106). Competitiveness is a key criterion for assessing the degree of success of countries in the field of political, economic and trade competition. This means that any country, region, city or rural area that has a high level of competitiveness in competitive markets can be said to have higher chance of competitiveness (Dadashpour and Ahmadi, 2010: 53.) In fact, competitiveness refers to the dynamic process of collecting assets and resources, transforming them into competitive opportinties and managing them by a strategy to achieve a superior competitive position (Rahman Seresht and Safaeian, 2011: 77).

In the meantime, considering the urbanization of the concept of competitiveness and the dominance of globalization with evolutionary means, such as cities, villages should not be neglected in this process (Dinis, 2007: 10). Villages, which have long been considered as space-generating nuclei in regional areas, nowdays, due to the rapid process of urbanization, have suffered from isolation and physical and spatial stagnation. This record and spatial isolation have been intensified by stimuli such as migration, lack of development resources and the alteration of tastes in production and distribution of indicators related to the quality of life, especially in developing countries, in recent decades (Shahraki, 1397; Schaller et al., 2018: 736). Creating competitive incentives in these areas and recognizing real expertise in the process of production and distribution of resources in the construction and spatial planning of rural areas, according to the quality of development within time, are essential for the prosperity and flow of services and development resources from and to these places (Dinis, 2006: 10-11).

One of the main and powerful drivers for rural competitiveness is entrepreneurship and its realization in rural areas (Yamoah & Arthur, 2019). The concept of rural entrepreneurship has found a prominent role in rural development literature by discussing topics such as livelihood, resource efficiency, job creation, empowerment, and other interesting topics related to development (Keshavarz, 2018: 766). In fact, rural entrepreneurship is the creation of a new business that introduces a new product or activity, or a new market for rural spatial assets, or uses new technology to develop and prosper activities and businesses in the rural environment (Burnett and Danson, 2017: 26). In line with the importance of entrepreneurship in competitiveness and rural development, economists consider it as the most important driver of rural economic development, politicians as a key strategy to prevent unrest in rural areas and help spatial endogenous development, farmers and villagers as a tool in order to improve their income and women as an opportunity to work in the vicinity of their place of residence in order to achieve their autonomy and independence (Malek Saeedi et al., 2013: 143).

Therefore, considering the importance of villages in creating balance and stability in the regional development and creating spatial mobility and dynamism in the development hierarchy of optimal land management, attention to rural competitiveness can play a significant role in strengthening the development of these regions against the changes and the increasing development of cities. With this background and the importance of the issue of competitiveness and explaining the role of entrepreneurship in the competitiveness of rural areas, in this study, rural areas of Cheshmeh Saran in Azadshahr city have been selected as the study area. Golestan province ranks second among the provinces in terms of the share of rural population. In this province, about 47% of the population (870 thousand people) live in rural settlements. The rural population is more than the total population of Ilam, South Khorasan, North Khorasan, Semnan, Kohkiluyeh and

Boyer-Ahmad provinces. In other words, this comparison reveals the importance of paying attention to the rural population in this province for the planning system. A review of rural development patterns at the national and international levels shows that reliance on the local community with a focus on entrepreneurs and creative people has a significant role in business and rural development. In Cheshmehsaran, more than 80% of its population lives in rural areas. Due to their great distance from the top urban centers of the province (provincial center and city), these rural centers always face threats of reduction or, in other words, population evacuation. Existence of abundant environmental capacities along with successful entrepreneurship model in Cheshmehsaran sector shows that by relying on creative people and local entrepreneurs, the economic activities of this sector can be transformed. On the other hand, the orientation of development programs at the national and provincial levels with a focus on economic development and rural employment, justifies research on the role of competitiveness in rural development in order to provide a way to achieve the goal. Also, due to the existence of successful examples of entrepreneurship and positive economic developments, Cheshmehsaran has been in the spotlight, which can be used as a successful model in the province and the country in completing the current trends. The mentioned cases have caused the main purpose of this research to answer the following two main questions: First, what are the factors or drivers that explain rural entrepreneurship in Cheshmehsaran? Second, what are the functions of stimulating competitiveness in rural areas of Cheshmehsaran district?

Heoretical Framework

In the era of globalization, competitiveness, especially at the regional level, is one of the new approaches to regional development and stimulates the economic, social and cultural dynamics of these regions (Dadashpour, Ahmadi, 2010: 51). In fact, one of the consequences of globalization is the emergence of powerful regional economies, some of which have much higher regional GDP than most countries (2014: 5371 Zegarra & Charles). According to development planners, it is the regions that are the main driver of the national economy, not the countries. Thus, in the current global context, not only companies and countries, but also regions are competing with each other to achieve a regional competitive advantage by gaining a competitive advantage in the global economy and accessing new markets. It is in response to this way of thinking that since the 1990s, the idea of regional competitiveness has become a dominant issue based on the role of geographical location of economic activities on competitiveness and economic benefits resulting from globalization in the public political circles of developed and some developing countries (Dadashpour and Ahmadi, 2010: 52).

Competitiveness is an approach that increases the responsibility of local and regional institutions to strive to improve the quality of economic and social life so that they can contribute to the process of excellence and spatial development (Serbu, 2014: 14). In the literature on the sustainability of development at the regional level, balance is achieved when villages, like cities, can display the manifestations of development. This is one of the indicators of sustainability of rural and urban competitiveness with each other in the age of globalization (Vázquez & Hernandez, 2014: 15).

Instead of a relative advantage that cannot explain the promotion resulted from the scale, networks, and the strategic alliances of large corporations and the growing importance of technology transfer, Porter argues, we need to look for a new tool, and that it is competitiveness. Competitiveness is a dynamic and innovative function that is capable of change and improvement. Things that seem useful in the framework of the old model, with the application of this new framework, bring the opposite result. Elsewhere he explains: "Economic prosperity is not inherited, it is created. Contrary to what neoclassical economists believed, economic prosperity does not come from natural resources, labor, bank interest rates, or the value of the currency; rather, the competitiveness of a country [or region] depends on the capacity of its industries and activities to innovate and promote" (Porter, 1990: 73).

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Rural entrepreneurship is one of the driving forces of regional competitiveness, especially in rural areas, which have received less power and less attention in the field of regional competitiveness than urban areas. According to Harpa, entrepreneurship can move cycles of competitiveness in rural areas and realize the spatial dynamics resulting from development functions in rural areas (Harpa, 2017: 966). The existence of productive drivers such as agriculture, food, small workshop industries and livestock and non-livestock products and even rural tourism can provide sustainable and mutually competitive entrepreneurship in the field of regional development planning (Cerro et al., 2017: 253; Arthor & Yamoah, 2019: 152-153).

Given the scale of production and the position of rural areas in the residential hierarchy, it is not possible to have a general and comprehensive picture of economies of scale in rural areas as micro-production units. This issue has weakened the rural economy (Fallah Haghighi, 2017: 116; Ozment & Martin, 1990: 278). In a way that the villages are practically involved in the processes of selling raw materials, brokerage and financial intermediation, and the added value of economic-productive activities of the villages in practice does not return to the villages. This issue causes the economy of the country's villages to be weakened and the villages to face many problems both in terms of role-playing in the structure of the country's activity and in terms of manpower productivity (Imani et al., 2018). Spatial reflection of this phenomenon on the low mapping of villages in the regional space organization in the country, the increasing trend of rural evacuation, the reluctance of the private sector to invest in villages, and lack of formation and completion of production and value chains in rural products and products will lead to the widening gap of the city and the village (Azizpour and Shamsi, 1393: 106).

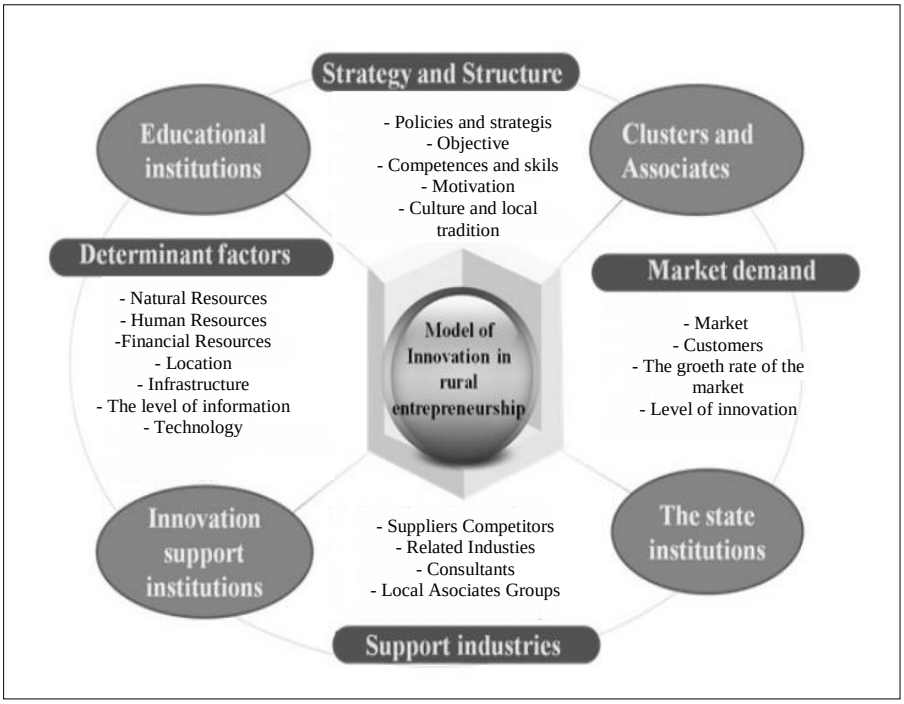
In the planning literature, clustering zones is considered as an answer to the problem of individual and independent production of production-industrial units. Clustering brings the benefits of networking, innovation and learning, increased productivity and, most importantly, competitiveness. The spatial reflection of this issue at the regional level is the formation of rural interconnected networks and regional specialties and the creation of innovative environments that on the one hand enhance entrepreneurial capacity and on the other hand create an attractive environment for investors. Continuation of this process leads to the development of regions (Hadi Zanouz and Barmaki, 1390: 6).

In other words, the weakness of the economic structure of the villages and the lack of formation of production clusters cause the weakening of the housing capacities and spatial organization of the rural settlement network. In this regard, the promotion of rural entrepreneurship can lead to the formation of competitiveness for development in these areas (Korsgaard et al., 2015). According to Porter, a firm can be competitive in two ways: differentiation or scale of production (Porter, 1990). Given that villages alone are not capable of large-scale production, the solution must be sought in creating clusters of activity. Rural networking, in addition to creating large-scale production capacities, increases entrepreneurial opportunities, the possibility of creating complementary production relationships, and the development and completion of production chains (Korsgaard et al., 2015).

Rural entrepreneurship is a phenomenon that is pursued not only in the field of agriculture and rural areas, but also in the field of industry and satellite towns and adjacent cities (middle spaces). Not only can it be a good response to emerging changes in rural development, but it can also address issues such as sustainability, globalization and gender approaches, and ultimately competitiveness in rural areas. In fact, it can be said that rural entrepreneurship as one of the rural development strategies shows both the features and achievements of the modernization school which emphasizes capital accumulation, increasing the area under cultivation and productivity in order to increase production. This relies on the rural poverty as well as their empowerment. Entrepreneurship in rural areas is also related to multifunctional agriculture and multidisciplinary industries in rural areas (Shahraki, 2017: 70).

In summary, it can be said that the Harpa model is the theoretical basis in this study. This

model has been selected due to its comprehensiveness and, of course, the use of the index of innovation, creativity, education and attention to the leading role of competitiveness. Regional competitiveness recognizes the specialized role of regions. Competitive regions have higher productivity than other regions. Development of knowledge infrastructures, entrepreneurial capacities, concentration of specialized labor force, development of conversion and processing industries, completion of value chain and cluster relations are the characteristics of these regions (Sharifzadegan, Tusi, 2015: 17). As shown in Figure 1, explaining and recognizing the drivers of entrepreneurship and competitiveness functions in rural areas requires attention to the aspects of manpower, market, infrastructure networks, knowledge and technology infrastructure, and environmental and natural capacities. Rural entrepreneurship can be considered as one of the drivers of enhancing competitiveness in rural areas and will play a significant role for rural areas in the level of regional development.



F1. Model of entrepreneurial innovation competitiveness in rural environment (Source: Harpa, 2017: 967).

Esearch Methodology

The present study has been done with applied targeting and with "descriptive-analytical" methodology. Descriptive data collected by library method and referring to the documents of statistics and valid references related to the research issue and the study area. In this study, for collecting quantitative data or analytical part of the research, the field survey method was used with a questionnaire that was used by members of the Islamic Council of villages and village heads of Cheshmeh Saran district as well as statistical information related to Cheshmeh Saran district of Azadshahr city. In addition to the official data on employment in activity groups, a separate question was asked about the 16 indicators for each of the activities in each village. Based on this, 128 questionnaires were completed.

The work process consists of two stages. In the first step, 16 indicators for measuring entrepreneurship are determined by the exploratory factor analysis (EFA) method. Using the calculated factor coefficients, villages are graded based on entrepreneurial capacities. In the second step, since

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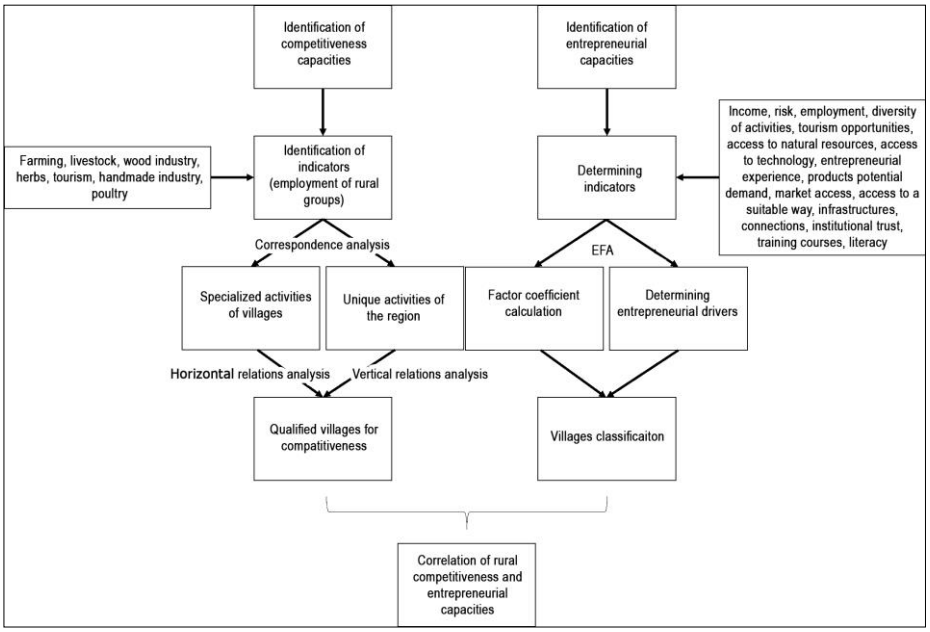
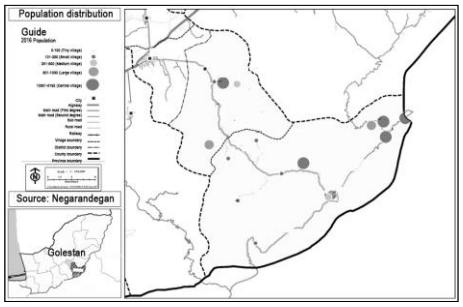
competitive advantage is a relative of other actors, correspondence analysis has been used to explain and analyze the functions of competitiveness in this area. Comparative analysis based on the correlation between column and row (in this report, village and phenomenon and focuses on the performance activity) draws the correlation between factors in a two-dimensional structure. Therefore, it can show the specialized and unique activities of a region and the specialties of each village in a region at the same time (Figure 2).



F2. Conceptual model for research process.

The study area includes Cheshmehsaran in the east of Azadshahr city. In terms of location and proximity, this rural area is adjacent to the central part of the city from the north, Minoodasht city from the east, Ramian city from the west and Semnan province from the south. This area (Cheshmehsaran) is divided into two villages called Cheshmeh Saran and South Khorramarud In Cheshmehsaran, more than 80% of the population lives in rural areas. The study of population growth rate in a long-term period of 20 years shows that in the southern Khorramarud rural district in the period under study (1996-2016) population growth rate was 2% and in the short-term period (2011-2016) 1%. Cheshmehsaran village has a growth rate of -0.2% in the long run (1996-2016) and a growth rate of -0.9% in the short run (2011-2016). This village in Azadshahr city (with 4 villages) is the only village that has experienced a negative growth rate. Figure 3 shows the population distribution in the Cheshmehsaran section.



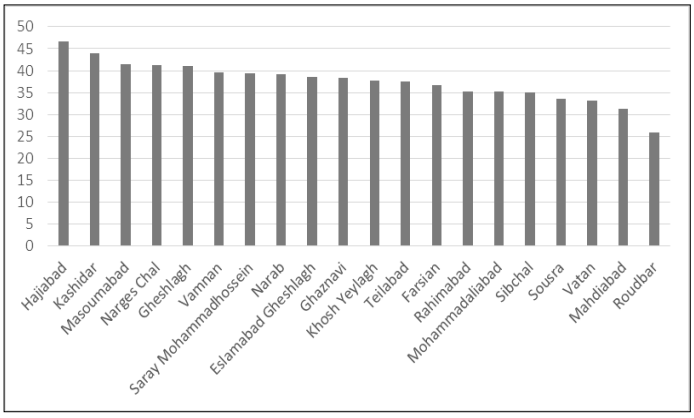
F3. Population distribution in the area under study.

Table 1 shows the human resource indicators for each village. The highest economic participation rate of Cheshmehsaran is related to Hajiabad village with 46.67% and then Kashidar and Masoumabad villages. The lowest economic participation rate is related to Rudbar village with 25.89% and then Mahdiabad and Vatan villages.

Chart 1 shows the level of economic participation of villages. Employment rate is the ratio of employed population to active population (employed and unemployed) multiplied by 100, which is a sign of the dynamism and mobility of society in the use of material and spiritual facilities.

Row	Village	Economic participation rate	Total employment rate
1	Hajiabad	46.67	100
2	Kashidar	44.05	93.92
3	Masoumabad	41.38	91.67
4	Narges Chal	41.30	94.74
5	Gheshlagh	41.07	100
6	Vamnan	39.50	90.24
7	Saray Mohammadhossein	39.49	95.41
8	Narab	39.10	90.31
9	Eslamabad Gheshlagh	38.60	59.09
10	Ghaznavi	38.30	88.89
11	Khosh Yeylagh	37.63	84.93
12	Teilabad	37.52	80.18
13	Farsian	36.64	82.83
14	Rahimabad	35.29	97.22
15	Mohammadaliabad	35.28	86.96
16	Sibchal	35.10	90.41
17	Sousra	33.48	91.30
18	Vatan	33.07	94.90
19	Mahdiabad	31.31	96.77
20	Roudbar	25.89	72.55

T1. Manpower of villages in Cheshmeh Saran.



CH1. Economic participation rate of villages in Cheshmeh Saran.

Table 2 shows the main occupations of Cheshmehsaran villages, based on which the main specialty in this area is agriculture and animal husbandry. Residents of Rudbar, Sousra and Vatan villages are working in mines due to their vicinity to coal mines, and stricture is one of the main occupations of the residents of Saray Mohammadhossein village. Due to the fact that agriculture and animal husbandry are the main occupations of the villages in this area, agricultural and animal husbandry training courses such as optimal rice production, horticulture, mushroom cultivation, saffron cultivation, seed disinfection, and animal care are entrusted to the Jihad Agricultural Organization in these villages.

Esearch findings

At this stage of the research, first an attempt was made to identify the drivers and factors of rural entrepreneurship in Cheshmehsaran in accordance with the goals. Exploratory factor analysis has been used for this purpose.

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of the test was confirmed.

Based on the results of factor analysis, the table of total variance extracted from the data showed the existence of five identified drivers with 74% of data variance. Table 3 below shows the variables associated with each factor in green.

Village	Main Occupation
Eslamabad Gheshlagh	Agriculture – Animal Husbandry
Teilabad	Agriculture – Gardening – Animal Husbandry
Hajiabad	Agriculture – Animal Husbandry
Khosh Yeylagh	Agriculture – Animal Husbandry
Rahimabad	Agriculture – Animal Husbandry
Roudbar	Agriculture – Mining – Animal Husbandry – Gardening
Saray Mohammadhossein	Agriculture – Mining – Animal Husbandry – Gardening – Sericulture
Sousra	Agriculture – Mining – Animal Husbandry
Sibchal	Agriculture – Animal Husbandry
Ghaznavi	Agriculture – Animal Husbandry – Labor work – Owning trucks
Farsian	Agriculture – Animal Husbandry
Gheshlagh	Agriculture – Animal Husbandry
Kashidar	Agriculture – Animal Husbandry
Mohammadaliabad	Agriculture – Animal Husbandry
Masoumabad	Agriculture – Animal Husbandry
Mahdiabad	Agriculture – Animal Husbandry
Narab	Agriculture – Animal Husbandry
Narges Chal	Agriculture – Animal Husbandry
Vamnan	Agriculture – Animal Husbandry
Vatan	Agriculture – Mining – Animal Husbandry

T2. Main occupation of each village.

	Component				
	1	2	3	4	5
Access to market	-0.080	-.127	.634	-0.034	.259
Road access	0.091	.363	.805	-0.003	-0.02
Infrastructure	.105	0.055	.825	.120	-0.032
Income	.740	.404	-.103	-.226	-0.008
Social capital	.106	.174	0.07	.882	0.039
Entrepreneurial experience	.241	.891	.135	.201	0.041
Risk	.814	.188	.297	.28	.171
Training courses	.164	-0.094	.271	.310	.526
Employment	.683	-0.034	.170	.447	.110
NGOs	-.245	-.346	-.14	.602	.224
Diversity of activities	.640	0.449	-.192	-0.065	-0.068
Tourism opportunities	.811	0.156	-.81	-0.007	-.101
Access to rare natural resources	.874	0.095	.121	.31	-0.005
Literacy	0.043	-0.093	-0.003	-0.008	-.881
Access to technology	.706	.130	0.052	-.578	0.052
Actual demand	.266	.886	.120	.208	0.03
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.					
a. Rotation converged in 7 iterations.					

T3. Rotation matrix to identify drivers and internal variables.

In the following, the factor coefficient of each factor group has been registered and determined. Factor coefficients are calculated from the arithmetic mean of the variables of each factor. Based on this, it is determined that the existence of entrepreneurial fields due to two variables of entrepreneurial experience and the existence of actual demand are the most important factor affecting entrepreneurship in the villages of Cheshmeh Saran. Then there are the social determined. Factor coefficients are calculated from the arithmetic mean of the variables of each factor. Based on this, it is determined that the existence of entrepreneurial fields due to two variables of entrepreneurial experience and the existence of actual demand are the most important factor affecting entrepreneurship in the villages of Cheshmeh Saran. Then there are the social.

Accordingly, four villages of Farsian, Kashidar, Vamnan and Vatan are identified as villages with entrepreneurial capacities. Entrepreneurial fields and opportunities in these villages are different from each other. Farsian village, as the tourism target village and tourism pilot of the city, has significant environmental and physical capacities. The presence of entrepreneurs in the village who work in the field of tourism is one of the notable points of this village. It should be noted that there are 2 active tourist tours in the village, which cooperates with the major tourist tours of the country. These tours bring tourists from Tehran and other provinces of the country to Farsian village. The side activities of the village and the general education provided to the residents by the Cultural Heritage and Tourism Organization and Agricultural Jihad have provided the ground for the development of side activities in the field of tourism. The sale of land products, the possibility of hand-picking products, three eco-tourism resorts at the top of the village and two resorts at the bottom and in the vicinity of the river provide the presence of tourists and their accommodation. Farsian tours also include tourist attractions of other villages. An important point to note is the tendency of villagers to sell their homes. This makes the villagers less likely to benefit from the tourism opportunity and foreign investors to take advantage of it. For example, one of the

residences was bought by an investor in Tehran province, and one of the villagers was paid to pursue the transfer and accommodation of the residents.

Factor	1st: Economic	2nd: Entrepreneurial Fields	3rd: Infrastructure	4th: Social Capital	5th: Knowledge
Score	0.753	0.889	0.755	0.742	0.703
Variable	Income	Entrepreneurial experience	Access to market	NGOs	Training courses
	Employment	Actual demand	Road access	Social capital	Literacy
	Diversity of activities		Infrastructure		
	Tourism opportunities				
	Access to rare natural resources				
	Access to technology				

T4. Explanation of entrepreneurial drivers in Cheshmeh Saran.

Entrepreneurial capacity	Villages
Low capacity	Eslamabad Gheshlagh - Teil Abad - Haji Abad - Khosh Yeilagh - Rahim Abad - Roudbar – Gheshlagh - Saray Mohammadhossein
High capacity	Farsian – Kashidar – Vamnan – Vatan

T5. Classification of Cheshmeh Saran villages according to entrepreneurial capacity.

various opportunities such as tourism, medicinal and forest plants and beekeeping. In this village, despite the lack of services and fuel restrictions, villas are being formed. The difference is that in this village, one of the villagers, who now lives in Azadshahr, is running such projects. They employ their own manpower in the village and assist in the service and infrastructure of the village. Another entrepreneurial capacity of the village is a person who has two paddy factories and buys the products of the villagers from them.

Kashidar is a village whose most important entrepreneurial capacity is the existence of a prominent entrepreneur in the country. This person has an investment office in Gorgan and Tehran. He has invested in the production of mobile software, distribution of dairy products, etc.

Vamnan can be considered as the most important village in Cheshmeh Saran district in terms of entrepreneurial capacities. Existence of entrepreneurs in the field of cultivation of medicinal plants and its conversion industries and registration of Vamnan brand are among the activities of the people of this village. The village Sheikh has played an important role in the development of the village and the actualization of the village's capacities. According to the people, he has played a very important role in changing the type of cultivation and creating conversion and marketing industries in the village.

In addition, the village conservatory has established a field of medicinal plants and introduces village students to this environmental capacity. In addition to being a leader in the field of saffron, Vamnan has an active rural cooperative that sells saffron seeds and Mohammadi flowers to other villages in the Cheshmehsaran district. Side activities such as saffron festival and construction of eco-tourism accommodation are other opportunities that have been created in the village.

Next, based on the second goal of the research, an attempt was made to measure the competitiveness of the villages of Cheshmehsaran district and evaluate the role of rural expertise in relation to the production and activity system, relying on the regional competitiveness approach. For this purpose, correspondence analysis was adopted using employment data and the intensity of activities in each village. In this technique, clusters with a homogeneous distribution are represented as points that are close to each other in a two-dimensional analysis space, and clusters that have a very heterogeneous distribution will be placed far apart. However, this technique is used as a tool to differentiate the economic role of a group of villages. This statistical number is called the sum of inertia. Total inertia is a measure of the mean distances between the coordinates of points and the mean of clusters. In other words, it shows the degree of scatter relative to the mean coordinates. Therefore, the greater the distance of points to the central mass (mean), the higher the inertia of the sum. The highest inertia will be achieved when all the villages play a completely different economic role in the region. Similarly, when villages play exactly the same economic roles, their total inertia will

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be zero. In fact, the maximum numerical value will never be obtained and will have a large distance from the inertia of the maximum sum. The maximum value will only be achieved implicitly when, for example, each village has a unique specialized role. In other words, a large part of rural employment is non-exchangeable. Tables 6 and Figures 4 and 5 show the results of the correspondence analysis.

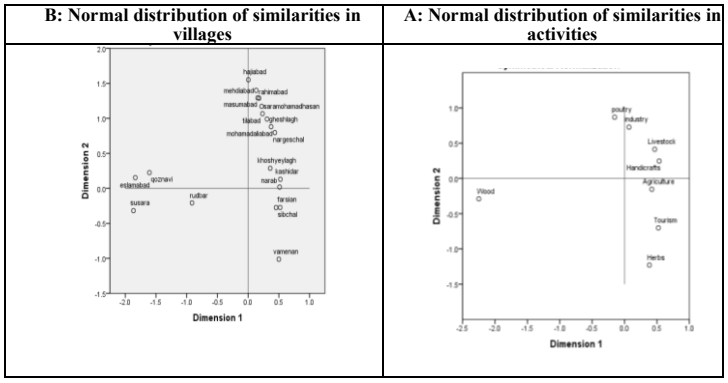
Based on the correspondence analysis, it is determined that saffron and medicinal plants, poultry, wood industry and tourism are competitive activities of Cheshmehsaran. Meanwhile, poultry farms are excluded from the set of competitive activities due to lack of access to large markets and weakness in the conversion phase, according to villagers. Finally, the specialized role of the villages is determined based on the competitiveness of the region in Cheshmehsaran.

The specialized function of the villages was determined with the aim of recognizing their competitiveness in the synergistic network, which is described in Table 7.

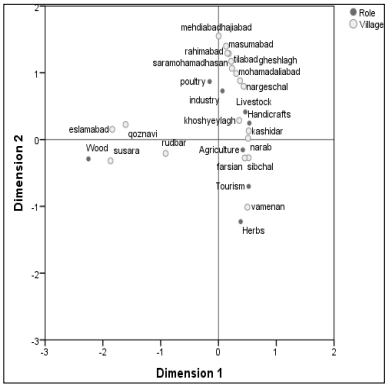
According to the diagrams of comparative analysis, the three main functions and competitiveness of rural areas can be mentioned in the production of medicinal plants, wood industry and tourism.

Overview Column Pointsa									
Role	Mass	Score in Dimension		Inertia	Contribution				
					Of Point to Inertia of Dimension		Of Dimension to Inertia of Point		
		1	2		1	2	1	2	Total
Agriculture	0.127	0.421	-0.154	0.028	0.03	0.007	0.620	0.05	0.670
Livestock	0.129	0.466	0.413	0.073	0.037	0.048	0.288	0.138	0.426
Wood	0.122	-2.249	-0.290	0.475	0.818	0.022	0.983	0.01	0.993
Herbs	0.129	0.383	-1.229	0.135	0.025	0.423	0.106	0.659	0.765
Tourism	0.111	0.522	-0.701	0.115	0.04	0.119	0.199	0.218	0.418
Handicrafts	0.120	0.534	0.246	0.071	0.045	0.016	0.363	0.047	0.410
poultry	0.130	-0.153	0.869	0.89	0.004	0.213	0.026	0.502	0.528
industry	0.131	0.69	0.728	0.074	0.001	0.152	0.006	0.430	0.436
Active Total	1			1.062	1	1			
a. Symmetrical normalization									

T6. Results of the correspondence analysis to identify the function of each village.



F4. Similarities distribution chart in the activities of Cheshmeh Saran and Villages.



F5. Correspondence Analysis chart in the activities of Cheshmeh Saran.

Function (Expertise)	Number of points with similar function in network	Villages which have the expertise
Medicinal plants	1	Vamnan
Tourism	3	Farsian – Vamnan
Wood industry	2	Sousra

T7. Specialized function of villages in the synergistic network.

Conclusion

Nowadays, entrepreneurship is considered as a sustainable driver to revitalize rural areas and improve their competitiveness in the age of globalization by targeting urban development. If we pay attention to the

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foundations and sustainable drivers in the field of entrepreneurship, competitiveness can be pushed to the highest level in rural areas and spatial development of these areas can be led. In this study, an attempt was made to examine and identify the drivers of entrepreneurship and specialized functions that lead to the competitiveness of rural areas in Cheshmehsaran. First, it was identified that the five drivers are economy, context, infrastructure, social capital and knowledge. At this stage, it was found that the drivers of entrepreneurship with 0.88 points have a prominent role in explaining entrepreneurship in rural areas of Cheshmehsaran. Entrepreneurial experience and the existence of actual demand, were the explanatory variables of these drivers. Infrastructure drivers were next with a score of 0.75, which was explained in terms of infrastructure facilities, market access and access to traffic routes. The economic drivers in rural entrepreneurship in Cheshmehsaran were the third drivers, which are explained in terms of variables such as income, risktaking,employment, variety of activities, tourism opportunities, access to scarce natural resources and access to technology. The drivers of social capital were the fourth drivers of entrepreneurship in rural areas of Cheshmehsaran district, which was explained by variables such as capital and social trust. Finally, the drivers of knowledge-based rural entrepreneurship in Cheshmehsaran district were explained by variables such as training courses and literacy level.

In terms of competitiveness of rural areas of Cheshmehsaran district, it should be said that based on the activity structure of villages and access to land and water resources, the villages of the region can be divided into six zones.

Activity zone centered in Vamnan: It includes the villages of Narab, Kashidar and Sibchal. In this area, saffron, medicinal plants and mountain products are considered as a competitive advantage. Medicinal plants conversion industries have been formed in Vamanan. The foundation of these activities was agriculture. Various tourism capacities including saffron tourism, natural tourism, religious tourism, and winter tourism can be seen. The activities of this land area are basic and its capital flows are formed trans-regionally. In addition to agriculture, the villagers work in non-agricultural seasons in Shahroud.

Activity zone centered in Farsian: This zone covers a wide range of activities. Road services, natural tourism and ecotourism, historical tourism and mining are among these activities. The settlement of villages is affected by the river and road factor. In non-agricultural seasons, villagers work in the mine. Livestock and poultry farming are other activities in this area.

Khoshyeilagh: The single village is highly dependent on Shahroud in terms of activity. This area has natural tourism potential. Dependence on land resources and activity limitations are among the activity characteristics of this area.

Eslamabad Gheshlagh, Roudbar, Gheshlagh and Masoumabad are among the villages of this zone. The structure of activity in this area is traditional in terms of agriculture, animal husbandry and horticulture. A significant part of the villagers' activity as laborers is in the coal mine. The diversity of activities in this area is high, but they have problems in terms of income.

Mountain activity zone: It includes Vatan, Narges Chal, and Hajiabad. In this area, there is a potential opportunity for cultivation of medicinal and forest plants, natural tourism, horticulture, and beekeeping. The access of these villages to water resources and their share of irrigated agriculture is remarkable. However, poor access to pastures due to legal restrictions on livestock entry into forest lands is one of the notable points of this area. The existence of Gheshlagh mine is also considered as one of the influential aspects on the employment and activity of this area.

Sousra and Saray Mohammadhossein have a wide variety of activities in agriculture, horticulture, and wood industry. In addition, the structure of activity and employment of these two villages is also affected by the town of Nodeh Khandouz and Gheshlagh mine. In general, it can be said that there are three main functions and specialties for the competitiveness of rural areas of

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Cheshmehsaran district –tourism, wood industry and production of medicinal plants.

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