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Investigating and Analyzing the Factors Affecting the Development of Agricultural Entrepreneurship in Rural Areas of Iranshahr County with the AHP Analysis Approach

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Abstract— Apart from the policies and macro strategies of economic development, the pundits of rural development pay special attention to the development of villages and the eradication of the widespread poverty prevailing them. Because, according to economists, this is the most important factor in the economic development of the villages and the agricultural sector and according to politicians, the development of agricultural entrepreneurship in villages is a key strategy for preventing social harm. Accordingly, the aim of this study is to identify and prioritize the factors affecting the development of agricultural entrepreneurship in rural areas of Iranshahr County using the AHP approach from the viewpoint of entrepreneurship farmers and agricultural experts.

In terms of method, this research is of descriptive - survey type and in terms of objective it is an applied research. The statistical population of this research includes 60 farmers and agricultural experts of Iranshahr County. Out of 60 persons, 52 persons were selected as the sample using a Cochran formula. The survey instrument was a questionnaire, the validity of which was confirmed by a group of agricultural experts and its reliability was estimated about 0.783 using Cronbach's alpha coefficient. Data were analyzed using SPSS 23 software package and in order for ranking them the multi criteria decision making was used. Based on the results, five factors of environmental, social, economic, behavioral and promotional have played a role in the development of agricultural entrepreneurship among which the economic factors with the weight of 0.290 the greatest impact on agricultural entrepreneurship followed by behavioral, environmental, promotional and social factors with weights of 0.201, 0.199, 0.169, 0.142, respectively. We believe that the importance of the economic factor is due to the change in the direction towards the mechanization of agricultural activities and the increase of productivity in the studied area.

Keywords — Iranshahr county, entrepreneurship, agricultural entrepreneurship

1 Introduction

Today, villages play an important role in the country's

significant amount of population. On this basis, they have an important position in the country's planning system and are considered among components and elements of national development [20]. The production role of the village in achieving food security, assisting the industrial sector, as well as the role of rural non-oil exports in GDP and creating job opportunities, are among the favorable impacts of rural areas on national development [7]. Therefore, in order to overcome socio-economic problems facing rural communities, entrepreneurial approach has been considered by planners as one of the important strategies of rural development in recent decades [3]. Such that, in the view of most scholars, this strategy has been introduced as a motor of rural economic development and an effective factor in the transformation and dynamics of the local economy [8]. Therefore, given the importance of entrepreneurship in rural socioeconomic development, appropriate infrastructures for individual and collective entrepreneurship should be provided that are based on the internal and external environment conditions on the other. Thus, according to development of rural economy entrepreneurship are closely interrelated [4]. So that entrepreneurship in small and medium-size activities is a scale in the process of rural development that can provide the basis for maintaining population and boosting rural development by making structural changes and overcoming existing challenges, especially in the field of economy [10].

production and employment system, and they have also a

Rural entrepreneurship is seen as an effective tool for contextualizing economic-social development through the creation of capital and its balanced distribution across the region, creating employment and income opportunities, improving living standards and national self-reliance [21]. So that, these measures lead to the creation of entrepreneurial contexts based on the development of local capacities, the mobilization and motivation among the exploiters, and ultimately the creation of selfconfidence through empowerment as the engine for local development [8]; In other words, entrepreneurship in rural areas shows a unique combination of resources inside or outside the agricultural sector, which focuses on providing hardware and software infrastructures that can reduce the economic development gap between rural and urban areas [24]. Entrepreneurship accelerates economic growth of

rural areas by creating the right conditions for employment opportunities and reducing gaps in access to resources and efforts to meet the needs of society [11]. Also, compared to the two sectors of industry and services, the agricultural sector plays an important role in the economies of the developing countries and despite the rapid growth of industry and services, agriculture continues to be the main subdivision of rural economy and the agricultural development is introduced as the main strategy of rural development [1].

Therefore, creating agricultural business and selfemployment in rural areas is one of the key issues in developing countries [24]. Business in agriculture is appropriate because it allows the use of local, regional and national markets, as well as the capacity to absorb knowledge and technology in this area due to demanddriven high. Accordingly, the agricultural sector is one of the basic sectors of the country's and rural economy and is the basis for the growth and development of entrepreneurship. Growth and development of the agricultural sector provide the necessary grounds for the growth and development of other sectors, without which the factors and inputs necessary for the operation of other economic sectors will not be provided; On the other hand, due to the importance of employment and human resources in the development of the country and the achievement of economic growth and development, relying on the reduction of unemployment, job creation in the agricultural sector also has a special place. For this reason, the adoption of the strategy of job creation for villagers by supporting public policies based on investment absorption, employment and services to rural areas against the strategy of compelling people to choose the most unintended immigration are among the necessities of rural development [23]. Therefore, the question that arises is that what are the factors affecting the development of agricultural entrepreneurship in the rural areas of Iranshahr and how are they ranked?

2 THEORETICAL FOUNDATIONS

2.1 Entrepreneurship

The term "entrepreneurship" is originated from a French word meaning commitment also so-called broker or dealer and is a concept that has been studied from different perspectives. Since the late 70s in many developed countries, due to a change in values and tendencies of society and, in other words due to the sociological changes, a wave of small businesses and self-employed individuals came into existence, so that this has caused the entrepreneurship to be discussed from numerous aspects and by different disciplines- such as economics, management and psychology [12].

Jean-Baptiste C. emphasizes the role of entrepreneurial management. Joseph Schumpeter ties entrepreneurship theory with economic development theory. In his view, entrepreneurship is the easiest way of economic development through innovation [13].

Kerzner (1979) argues that the main problem of every economy has originated from the lack of understanding of opportunities, and in his view, entrepreneurship means the knowledge of profitable and undiscovered opportunities. Schumpeter considers entrepreneurship as a driving force for economic growth, and Soto knows it as the foundation for development [15].

Agricultural Entrepreneurship

Fransokneh and Nicholas Bodo know the earth as the only source of wealth AND Call farmers as entrepreneurs and consider a special place for entrepreneurs [9]. Since agriculture is the main source of livelihood of the poor villagers, and additionally it has an important role in production and productive employment, in the current economic situation of Iran with distinctive features such as unemployment, lack of mobilization and investment restrictions, the importance of this mission is doubled. Because, strengthening agriculture and making changes in the agricultural products and national resource will lead to creation of non-agricultural jobs, increased revenue and increased demand for local agricultural and nonagricultural products. Also, the creation of networks between agricultural entrepreneurs helps to improve and develop agricultural entrepreneurship and create more employment in rural areas. According to Diasa, Franco (2018), the existence of agro-entrepreneurial networks helps to develop sustainable areas, since besides economic benefits, they have contributed to conserving the landscape, job creation and preserving traditions [26].

Also, policymakers, planners and agricultural sector experts believe that due to the developments mentioned, a structural change in the current agricultural production practices is necessary, and market-based agriculture in the framework of sustainable development will be the basic strategy for agricultural development [14].

Therefore, entrepreneurs in the agricultural sector can subtlety and as quickly as possible transform threats and environmental constraints into opportunities and in harsh and complex conditions such as rapid technology development, globalization and multinational economy, discover and exploit new opportunities which will lead to their interest and eventually to remove bottlenecks in the rural community [5].

Therefore, entrepreneur farmer is someone who with a certain foresight method, by taking into account the resource and environmental constraints, edification of his past and others, in accordance with indigenous and modern knowledge, with a transformative characters with risk-taking power, innovation and creativity at a high level, addresses the identification, evaluation and discover the best and latest economic and market opportunities, and based on his ingenuity and external guidelines and respect for the spatial and human rights, deals with rational, decent and economic utilization of agricultural potential and actual opportunities. One of the characteristics of the farmer entrepreneurs is the method they adopt to solve the problem. According to them, to reach a creative solution, it is firstly necessary that the basic problem or real issue to be identified and defined.

It should be noted, however, that successful entrepreneurship in the agricultural sector of the rural areas entails an unbreakable bond with the industry and service sector, in other words, it is industrialization of agriculture that institutionalizes the past and future links between industry and agriculture. Indeed, the development of each of these sectors depends on the development of the other, but it is obvious that the sequence must be followed in the development of the economic sectors; that is, the development process must

start from the agricultural sector and then, be extended to the industry, and eventually to the service sector, as most individual and social skills and specializations in developing countries are concentrated in the agricultural sector [5].

3 RESEARCH BACKGROUND

Yaghoubi and Ghasemi (2009) investigated the main factors contributing to the success of the agricultural sector's entrepreneurs and concluded that confidence, innovation, identifying opportunities and having knowledge and information are the most important factors of entrepreneurs' success. They also found that the most important barriers to entrepreneurship and employment are extra formalities and administrative corruption.

In a research entitled "The strategies of agricultural entrepreneurship development in rural areas", Roknoddin Eftekhari et al. (2010), found that by paying attention to the agricultural capabilities and enhancing innovation and creativity of entrepreneurship in the agricultural sector, one can achieve the challenges of rural development, in particular the creation of employment and revenues.

Sharifzadeh et al. (2010) identified and prioritized the supportive needs of agricultural businesses development and concluded that the two categories of institutional supports and educational and information services are needed. Among institutional supports, issuing bank loans, ease of administrative affairs, infrastructure development, transparency of laws and legal procedures, allocating land, subsidies, market regulation and expansion of the insurance coverage are of higher priorities. Among the educational and information supports, administrative procedures and affairs related to setting up and managing businesses, existing and future opportunities of entrepreneurs, preparing a business plan, production locating and planning are of the highest priority.

Motie Langroudi et al, have investigated the factors influencing the empowerment of villagers entrepreneurship development in Zand and Samen district of Malayer city [16]. Based on their results, entrepreneurs identified ten factors that affect villagers' empowerment for entrepreneurship development. These factors, in order of priority, include: perseverance factor, organizational factor, financial and economic factors, individual autonomy, individual experiences, creativity, sense of success and factor of the internal control center; therefore, the existence of individual and environmental factors mentioned above are affective in enhancing capabilities of the villagers in the studied area to create and develop the business.

Gemini et al. (2014) identified the employment development strategies in Badr village. The results of their study showed that factors such as educated labor, availability of entrepreneurship development grounds and the establishment of local markets, fertile lands and massive pastures for agriculture, geotouristic and acotouristic attractions, and mineral reserves are the strengths and opportunities for entrepreneurship development in the Badr village.

In another study, the basic needs of farmers for development of agricultural entrepreneurship, financial capital and sufficient credit, access to available capital, access to supportive services, customers and people needed are expressed as factors affecting the development of agricultural entrepreneurship, which such studies may be considered as environmental and economic approach to agricultural entrepreneurship [2].

Esiobuand et al. (2015) investigated entrepreneurship development in agriculture among the Nigerian farmers. Their findings show that farmers complained of poor access to entrepreneurship information, and there was a lack of sufficient capital and long distance between farms and markets in the area; however, farmers' perception of entrepreneurship was high [6].

Pindado and Sanchez (2017) have done research on new and existing entrepreneurial behaviors in investment in the European agricultural sector. Their results show that entrepreneurship in the agricultural sector has lower capabilities than other sectors. However, there are few entrepreneurs in this sector. On the other hand, newly created agricultural enterprises in the field of agricultural entrepreneurship have been less active than other sectors; so the results indicate that those who want to enter the agricultural entrepreneurship should begin to study theoretical literature and examine carefully the entrepreneurial skills and process.

4 METHODOLOGY

The aim of this study is to analyze the factors affecting the development of entrepreneurship in the agricultural sector in rural areas. In terms of method, this research is of descriptive - survey type and in terms of objective it is an applied research. The statistical population includes 30 farmers and 30 agricultural experts of Iranshahr county 52 of which were selected as the sample using a Cochran formula. To identify factors affecting agricultural entrepreneurship, we firstly extracted some factors from the sources and foundations, papers, documents, evidence and interviews with farmers and agriculture specialists, and then, we classified them into 5 categories. In the next stage, by formulating a questionnaire based on the results of the identification of effective factors, farmers' views in this regard were collected. To verify the validity of the questionnaire, we used the comments of several experts and agricultural specialists of Iranshahr County and to check the reliability of the questionnaire, we used Cronbach's alpha. The estimated value of this coefficient, 0.783, is indicative of an acceptable reliability. And to prioritize components and items, the inconsistency rate is less than 0.1. To analyze data, we used SPSS 23 software package and to analyze research findings we used one sample t-test and for ranking them we apply a multicriteria AHP decision-making method.

4.1 Analytic Hierarchy Process (AHP)

One of the most important human characteristics of every individual is the many decisions he make. Since a correct and timely decision can have a profound impact on personal and social life, the need to use a strong technique is quite tangible.

One of the most efficient of these techniques is the Analytic Hierarchy Process (AHP), first proposed by Thomas al in 1891. This technique is based on paired comparisons and allows managers to examine different scenarios. This technique provides the possibility of

formulating the problem in a hierarchical manner, as well as the possibility of considering different quantitative and qualitative criteria in the problem and is based on axioms [19].

4.1.1 Principles of Analytical Hierarchy Process

The four principles below are the principles of the hierarchical analysis process:

- 1. Reverse condition: if the preference of the element A over the element B is equal to n, the element B's preference over the element A is equal to 1/n.
- 2. Homogeneity Principle: element A on element B cannot be infinite or zero.
- 3. Dependency: Each hierarchical element can depend on its higher level element and this dependence can linearly continue to the highest level.
- 4. Expectations: When a change occurs in the hierarchical structure, the evaluation process must be done again (ibid. 18).

Consistency in judgments for all calculations of the hierarchical analysis process, which is based on the decision maker's initial judgment in the form of a paired comparison matrix, is done to eliminate any errors and incompatibilities in the comparison and determination of the importance between the options and the indicators. The inconsistency rate is a tool that identifies consistency and shows how much confidence can be derived from the preferences resulting from comparisons. inconsistency rate is less than 0.10, consistency of the comparisons is acceptable and otherwise the comparisons should be revised. To calculate the inconsistency rate, we should firstly calculate the Weighted Sum Vector (WSV). To do this, we multiply the matrix of the pair comparisons by the relative weight vector to obtain the weighted sum vector. In the next step, the consistency vector is calculated by dividing the weighted sum vector elements by the relative priority vector. Then, the mean of the consistency vector elements \(\lambda \text{max} \) is obtained. The determination of the consistency index, which indicates the number of options in the problem, is the next step, and finally, the consistency ratio is calculated by dividing the consistency index by the random index. Given the literature and background of the research, the conceptual model is shown in Fig. 1 below.

5 DATA ANALYSIS AND RESULTS

In order to use statistical tests and the diagnosis of parametric and non-parametric statistical tests it is firstly necessary to examine normality of variables. If we have normal variables, a parametric test is recommended, otherwise non-parametric tests will be considered. Kolmogorov-Smirnov test is used for normality of the data. Due to the normality of data, we used normal one-sample t-test to analyze the data.

5.1 The impact of environmental factors on agricultural entrepreneurship

In this section, we address the impact of environmental factors on agricultural entrepreneurship in rural areas and raise the following hypotheses:

H₀: Environmental factors have no significant effect on agricultural entrepreneurship.

H₁: Environmental factors have a significant effect on agricultural entrepreneurship.

Environmental factors (the Environmental factors (the quality of farmland, order and quality of farmland, order and arrangement of irrigation arrangement of irrigation periods, utilization of capacities periods, utilization of of the environment, large area capacities of the environment. and integrity of the land, large area and integrity of the appropriate use of water in land, appropriate use of water agriculture, correct principles of in agriculture, correct land preparation and transport principles of land preparation and communication) and transport and communication) Agricultural **Entrepreneurship** Economic factors (availability Social factors (the existence of capital and financial of rural cooperatives, selfstrength, providing sufficient confidence and self-reliance, low interest loans, adequate interest in self-employment, distribution of credits at the the application of personal regional level, government creativity, persistence and subsidies, appropriate banking perseverance, farmers' networks, insurance of appropriate mindset, interest agricultural products, in place of residence and automation and socioeconomic status of the mechanization, the amount of gross income, the appropriate family) sales markets, rural unemployment rate, economic laws and regulations, granting tax breaks)

Promotional factors (skill training courses, the existence of associations of agricultural entrepreneurship in rural areas, familiarity with the channels and information sources and having knowledge about entrepreneurship)

Figure 1. Conceptual model of research

Table 1. sample t-test results for environmental factors

| Statistic | Value |
|--------------------|--------|
| One-sample t | 40.769 |
| Degree of freedom | 5 |
| Significance level | 0.001 |

As observed in Table (1) the significant level of the test, 0.001, is less than the standard significance level, 0.05, indicating that the null hypothesis is rejected. As a result, with 95% of confidence level, we can say that in terms of respondents, environmental factors have a significant impact on agricultural entrepreneurship.

5.2 The impact of social factors on agricultural entrepreneurship

In this section, we address the impact of social factors on agricultural entrepreneurship in rural areas and raise the following hypotheses:

 H_0 : Social factors have no significant effect on agricultural entrepreneurship.

H₁: Social factors have a significant effect on agricultural entrepreneurship.

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Table 2. One sample t test results for social factors

| Statistic | Value |
|--------------------|--------|
| One-sample t | 34.874 |
| Degree of freedom | 8 |
| Significance level | 0.04 |

As observed in Table (2) the significant level of the test, 0.04, is less than the standard significance level, 0.05, indicating that the null hypothesis is rejected and thus the alternative hypothesis can be accepted. As a result, with 95% of confidence level, we can say that in terms of respondents, social factors have a significant impact on agricultural entrepreneurship.

5.3 The impact of economic factors on agricultural entrepreneurship

In this section, we address the impact of economic factors on agricultural entrepreneurship in rural areas and raise the following hypotheses:

H₀: Economic factors have no significant effect on agricultural entrepreneurship.

 H_1 : Economic factors have a significant effect on agricultural entrepreneurship.

Table 3. One sample t test results for economic factors

| Statistic | Value |
|--------------------|--------|
| One-sample t | 44.576 |
| Degree of freedom | 10 |
| Significance level | 0.000 |

As observed in Table (3) the significant level of the test, 0.000, is less than the standard significance level, 0.05, indicating that the null hypothesis is rejected and thus the alternative hypothesis can be accepted. Therefore, with 95% of confidence level, we can say that in terms of respondents, economic factors have a significant impact on agricultural entrepreneurship.

5.4 The impact of behavioral factors on agricultural entrepreneurship

In this section, we address the impact of behavioral factors on agricultural entrepreneurship in rural areas and raise the following hypotheses:

H₀: Behavioral factors have no significant effect on agricultural entrepreneurship.

H₁: Behavioral factors have a significant effect on agricultural entrepreneurship.

Table 4. One sample t test results for behavioral factors

| Statistic | Value |
|--------------------|--------|
| One-sample t | 108.25 |
| Degree of freedom | 3 |
| Significance level | 0.09 |

As observed in Table (4) the significant level of the test, 0.09, is greater than the standard significance level, 0.05, indicating that the null hypothesis cannot be

rejected. As a result, with 95% of confidence level, we can say that in terms of respondents, behavioral factors does not have a significant impact on agricultural entrepreneurship.

5.5 The impact of promotional factors on agricultural entrepreneurship

In this section, we address the impact of promotional factors on agricultural entrepreneurship in rural areas and raise the following hypotheses:

H₀: Promotional factors have no significant effect on agricultural entrepreneurship.

H₁: Promotional factors have a significant effect on agricultural entrepreneurship.

Table 5. One-sample t-test results for promotional factors

| Statistic | Value |
|--------------------|-------|
| One-sample t | 67 |
| Degree of freedom | 2 |
| Significance level | 0.000 |

As observed in Table (5) the significant level of the test, 0.000, is less than the standard significance level, 0.05, indicating that the null hypothesis is rejected and thus the alternative hypothesis can be accepted. As a result, with 95% of confidence level, we can say that in terms of respondents, promotional factors have a significant impact on agricultural entrepreneurship.

5.6 Ranking factors influencing entrepreneurship using multi-criteria decision making

Based on the process mentioned in the previous section, we firstly present hierarchical tree of factors influencing farmers' entrepreneurship (Fig. 2). In this hierarchical tree all the factors are evaluated based on criteria affecting entrepreneurship.

Before determining the importance of each of the subfactors and the severity of their impact on entrepreneurship in the five groups, we should also determine the effect of general factors. The impact of general factors on entrepreneurship based on the Analytic Hierarchy Process is reported in Table (6) below.

Table 6. Ranking general factors influencing entrepreneurship agricultural

| Factors | Weight |
|---------------|--------|
| Environmental | 0.199 |
| Social | 0.142 |
| Economic | 0.290 |
| Behavioral | 0.201 |
| Promotional | 0.169 |

As seen in Table (6), among factors influencing agricultural entrepreneurship, economic factors have the greatest impact, and then behavioral, environmental, promotional, and social factors have greatest impact on the agricultural entrepreneurship, respectively. After determining the overall rating of factors, due to the existence of sub-factors in each of the general factors it is necessary that ranking sub-factors in each category be

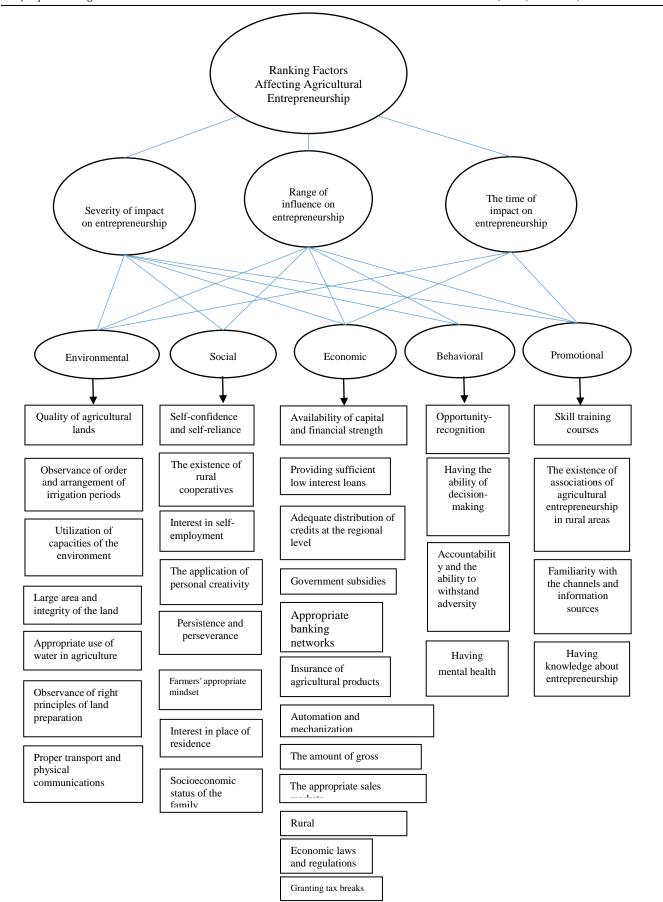


Figure 2. Hierarchical tree for factors affecting agricultural entrepreneurship

also made. Table (7) shows the results of this ranking for environmental factors.

Table 7. Ranking environmental factors affecting agricultural entrepreneurship

| Components | Weight |
|---|--------|
| Quality of agricultural lands | 0.215 |
| Observance of order and arrangement of irrigation periods | 0.131 |
| Utilization of capacities of the environment | 0.141 |
| Large area and integrity of the land | 0.123 |
| Appropriate use of water in agriculture | 0.138 |
| Observance of right principles of land preparation | 0.142 |
| Proper transport and physical communications | 0.138 |

As seen in Table (7), among environmental factors, the quality of agricultural land has the greatest impact on agricultural entrepreneurship and then, observance of right principles of land preparation, appropriate use of water in agriculture, observance of order and arrangement of irrigation periods, large area and integrity of the land, and proper transport and physical communications have influenced the agricultural entrepreneurship, respectively.

Table (8) shows the severity of the effect of social factors on agricultural entrepreneurship.

Table 8. Ranking social factors affecting agricultural entrepreneurship

| Components | Weight |
|--|--------|
| The existence of rural cooperatives | 0.139 |
| Self-confidence and self-reliance | 0.110 |
| Interest in self-employment | 0.131 |
| The application of personal creativity | 0.101 |
| Persistence and perseverance | 0.169 |
| Farmers' appropriate mindset | 0.104 |
| Interest in place of residence | 0.127 |
| Socioeconomic status of the family | 0.118 |

As seen in Table (8), among the social factors, persistence and perseverance has the greatest impact on agricultural entrepreneurship and then, the existence of rural cooperatives, interest in self-employment, interest in place of residence, socioeconomic status of the family, self-confidence and self-reliance, farmers' appropriate mindset, and the application of personal creativity have influenced agricultural entrepreneurship, respectively.

Table (9) shows the severity of the effect of economic factors on agricultural entrepreneurship.

As seen in Table (9), among the economic factors, availability of capital and financial strength has the greatest impact on agricultural entrepreneurship and then, the appropriate sales markets, providing sufficient low interest loans, insurance of agricultural products, adequate distribution of credits at the regional level, economic laws and regulations, government subsidies, automation and mechanization, appropriate banking networks, granting

tax breaks, the amount of gross income, and rural unemployment rate have influenced agricultural entrepreneurship, respectively.

 Table 9. Ranking economic factors affecting agricultural

 entrepreneurship

| Components | Weight |
|--|--------|
| Availability of capital and financial strength | 0.117 |
| Providing sufficient low interest loans | 0.102 |
| Adequate distribution of credits at the regional level | 0.081 |
| Government subsidies | 0.800 |
| Appropriate banking networks | 0.071 |
| Insurance of agricultural products | 0.088 |
| Automation and mechanization | 0.074 |
| The amount of gross income | 0.066 |

Table (10) shows the severity of the effect of behavioral factors on agricultural entrepreneurship.

Table 10. Ranking behavioral factors affecting agricultural entrepreneurship

| Components | Weight |
|---|--------|
| Opportunity-recognition | 0.239 |
| Having the ability of decision-making | 0.198 |
| Accountability and the ability to withstand adversity | 0.395 |
| Having mental health | 0.168 |

According to Table (9), among the behavioral factors, accountability and the ability to withstand adversity has the greatest impact on agricultural entrepreneurship and then, opportunity-recognition, having the ability of decision-making, and having mental health have influenced agricultural entrepreneurship, respectively.

Table (11) shows the severity of the effect of promotional factors on agricultural entrepreneurship.

Table 11. Ranking promotional factors affecting agricultural entrepreneurship

| Components | Weight |
|---|--------|
| Skill training courses | 0.263 |
| The existence of associations of agricultural entrepreneurship in rural areas | 0.337 |
| Familiarity with the information channels and sources | 0.273 |
| Having knowledge about entrepreneurship | 0.126 |

According to Table (9), among the promotional factors, the existence of associations of agricultural entrepreneurship in rural areas has the greatest impact on agricultural entrepreneurship and then, familiarity with the information channels and sources, skill training courses, and having knowledge about entrepreneurship have influenced agricultural entrepreneurship, respectively.

6 DISCUSSION

Today, employment and removal of deprivation is one of the most important factors in the development of rural areas. In this regard, "entrepreneurship" is considered as the driving force of the economy in order to achieve the intended goals. Entrepreneurship is a tool for realization of employment programs, encouraging investment, creating and expanding new markets, stimulating and organizing resources, connecting and integrating markets, combining and providing production factors, alleviation of poverty, strengthening NGOs, etc. Also, rural entrepreneurship is a new strategy in new theories on development for empowerment and capacity building in rural areas with the aim of reducing the city-village gap and economic, social, environmental and institutional equality, and is an important tool for sustainable development. These activities in various aspects, including economic, cultural-social and rural livelihoods, have tremendous effects on the lives of villages.

But according to the conducted studies, theoretically, this result is achieved that, despite the existing global studies and experience in the field of agricultural sector entrepreneurship and the ways and factors influencing its development, we still do not see much development in this field; Because, despite the fact that the generality of the subject is accepted, each study considers only specific effective factors in the development of agricultural entrepreneurship, while, on the one hand, due to the village's rich natural and human resources and, on the other hand, due to the role and importance of the village and agriculture in developing countries, the necessity of a comprehensive look at the internal economic, social, promotional, environmental and behavioral factors affecting the development of agricultural entrepreneurship in rural areas in the form of a hybrid approach is felt. On this basis, this study was conducted with a systematic approach to investigate the factors affecting the development of agricultural entrepreneurship. These factors were classified in five categories: environmental, social, economic, promotional, and behavioral; and were examined within 5 dimensions and 35 variables.

8. Conclusion

The findings showed that from the perspective of farmers and agricultural experts, economic factors have the greatest influence on agricultural entrepreneurship and then behavioral, environmental, promotional, and social factors have influenced the agricultural entrepreneurship, respectively. We believe that the importance of the economic factor is due to the change in the direction towards the mechanization of agricultural activities and the increase of productivity in the studied area.

According to the results of the research, the following recommendations are provided:

- Creating weekly markets, small markets, border markets in rural areas for the sale of agricultural products
- Provide financial support and investment in the agricultural sector to strengthen the infrastructure of the agricultural sector of the region through institutions and organizations
- Balanced access of all regional farmers to loans and banking services

- Paying attention to communicating agricultural sector with other economic sectors, including industry in the region
- Strengthening resource utilization grounds to reduce poverty and increase income among the villagers in the region
- Organizing the farmers' lands in the region based on indigenous behaviors and the needs of modern agriculture (participatory integration of land, creating communication ways between agricultural lands and creating a prospect of a regular area of lands)
- Compatibility between entrepreneurial activities, agricultural space and rural space in the region
- Study and increase the areas of sustainable use of agricultural resources by entrepreneur farmers of the region
- Increasing the role of education and promotion among officials and implementers of agricultural plans and programs to enhance social identity and self-reliance morale and innovation and risk-taking of farmers in the region.
- Increasing the skill of regional farmers in organizing resources and opportunities through resource management, optimal allocation of resources, and positivism to agricultural programs
- Reinforcing interest in living location and its development by encouraging elect farmers, enhancing agricultural education and promotion to raise awareness of entrepreneurship farmers in the region.

References

- [1] Alimirzaei, E., A. Asadi and M. Tahmasebi. 2011. Obstacles to development of Small and medium enterprises of rural entrepreneur in Khuzestan, case of study; Complementary industries of dates. Quarterly of Entrepreneurship Development, 3: 184-165. (In Persian)
- [2] CADE.2006. Phase 3: 2007–2012 mission statement, operating principles, goals and objectives. Center for Agricultural Development and entrepreneurship Strategic Plan. Available on: www.cadefarms.org/pdf/CADEStrategicPlanIII.pd.
- [3] Chowdhury, M.S. (2007): Overcoming Entrepreneurship Development Constraints: the Case of Bangladesh, Journal of EnterprisingCommunities: P eople and Places in the Global Economy, Vol. 1, No 3, pp: 240-251
- [4] Costa, R. and B. Rijkers, (2011): Gender and Rural Non-Farm Entrepreneurship, World Development Report 2012, Gender Equality and Development, Background Paper.68.
- [5] Eftekhari, A., Sojasi Gheidari, H and Razavi, S. 2010. Agricultural entrepreneurship development strategies in rural areas: Case study of Khudabandah villages, village and Development Journal, No. 51, Tehran, pp. 1-29. (in Persian)
- [6] Esiobu, N. S.; Onubuogu, G. C.; and Ibe, G. O. (2015), "Analysis of entrepreneurship development in agriculture among arable crop farmers in Imo state, Nigeria". International Journal of African and Asian Studies, Vol. 7.

[7] Fazelbeigi, M.M. and Gh.R. Yavari. 2009. Rural cooperation, beginning for entrepreneurship development. Quarterly of Cooperation and Agriculture, 20: 41-62. (In Persian)

- [8] Gürol, Y. and N. Atsan, (2008): Entrepreneurial Characteristics among University Students and Training in Turkey, Education and training, Vol. 48, Issue. 1, pp: 25-38
- [9] Hezarjaribi, G. 2005. Entrepreneurship, Tehran: Institute for Economic Affairs. (in Persian)
- [10] Islam, K. 2009: Rural Entrepreneurship for Women: A Case for Wealth Creation by Africa's Rural Poor amidst Global Financial and Crises, African Economic Conference, 11- 13 November, United Nations Conference Centre, Addis Ababa, Ethiopia.
- [11] Kazemirad, Zahra and Popzan, Abdolhamid. 2011: "Forecasting The Success Rate of Rural Entrepreneurs in Kermanshah City Using Artificial Neural Network (ANN) Analysis," Journal of Regional Planning, Year 1, No. 1, pp. 17-25. (in Persian)
- [12] Kiyakajori, D, Kozehgar, A., Amiri, B. 2012. The necessity of entrepreneurship in economic and social development of society. (In Persian)
- [13] Lord kipanidze, M., Brezet, H., Backman, M., 2005, The Entrepreneurship Factor in Sustainable Tourism Development, Journal of Cleaner Production No.13, PP.787-798
- [14] Marsden, T., and Smith, E. 2005. Ecological entrepreneurship: sustainable development in local communities through quality food production and local branding. Geoforum, 36 (4): 440-451
- [15] Mohapatra, S., Rozelle, S. and Goodhue, R., 2007, The Rise of Self- employment in Rural China: Development or Distress, World Development, Vol. 35, No.1, PP. 163-181
- [16] Motie Langroudi, Seyyed Hassan., Fediry Masoom, Mojtaba., Dadvar Khani, Fazileh., Yadollahi, Jahangir., Torkashvand. Zahra. 2011. Explaining the Factors Affecting the Empowerment of Villagers in the Development of Entrepreneurship (Case study: Zand and Samen sections of Malayer County), Journal of Human Geography Research, Year. 44, No. 80. (in Persian)
- [17] Nandanwar, K.P. 2011: Role of Rural Entrepreneurship in Rural Development, Research Paper, International Referred Research Journal, Vol II, Issue26, pp: 8-17.
- [18] Pindado, Emilio & Sanchez, M. 2017. Researching the entrepreneurial behaviour of new and existing ventures in European agriculture, Springer Science+Business Media New York, Vol 49, Issue 2, pp 421–444.
- [19] Qodsi pour, Hussein. 2013. Analytical Hierarchy Process (AHP). Tehran: Amirkabir University of Technology. (In Persian)
- [20] Saeidi, A. and E. Rastegar. 2009. Effectiveness of the civil plans and projects on socio-economic development of rural settlements, case of study; sector of Varavi's villages of Mehr County. Quarterly of Geography, 7: 47-63. (In Persian)
- [21] Saxena, S. 2012: Problems Faced By Rural Entrepreneurs and Remedies to Solve It,

- IOSR Journal of Business and Management (IOSRJBM), Vol. 3, Issue 1, pp: 23-29.
- [22] Sharifzadeh, A., Arabiyon, A., Abdullah Zadeh, Gh. 2010. Identification and prioritization of support needs of agricultural business development: Case study of Golestan Province. Development of Entrepreneurship, Third Year, No. 10. pp. 71- 91. (In Persian)
- [23] Shokuie, Hossein. 2005. New Thoughts in the Philosophy of Geography: Environmental Philosophy and Geographic Schools, Vol. II. Tehran: Gytology. (in Persian)
- [24] Yadolahi Farsi, J. and S.M. Razavi. 2012. The role of social capital and human capital in young entrepreneurs in sector of Karbal's villages. Quarterly of Geographical Researches, 44: 103-115. (in Persian)
- [25] Yaghoubi, Jafar, Ghasemi, Javad, 2009, Investigating the Factors Affecting the Success of Agricultural Entrepreneurs and Their Supporting Strategies: A Case Study of Zanjan Province, Quarterly Journal of Cooperation and Agriculture, Vol. 20, 202-203, Pages 97-85. (In Persian)
- [26] Dias, C., & Franco, M. (2018). Cooperation in tradition or tradition in cooperation? Networks of agricultural entrepreneurs. *Land Use Policy*, 71, 36-48.