

Effective factors in rural entrepreneurship development: A case study of villages in the central district of Bardaskan city

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In the last few decades, entrepreneurship as a strategy in the development and prosperity of human societies has turned into an unmatched alternative through which all factors, resources and facilities of a society are spontaneously mobilized through being placed in an evolutionary process in order to achieve high social ideals so that they become the source of many positive socio-economic consequences. Considering the importance of rural settlements in the national and regional space, the main purpose of the present study is to investigate the factors influencing rural entrepreneurship development at the villages in the central district of Bardaskan city. This research is an applied study in terms of purpose and a descriptive-analytical study in terms of methodology. Data has been collected through questionnaire and field survey. The research statistical population comprised 22 villages with over 100 inhabitants in the central district of Bardaskan. In the present study, which with regard to the limited statistical population (number of villages including above 100 people), sampling was not performed and all the villages of this district were considered as the sample population. The population of these 22 villages in 2016 amounted to 10,331 people in the form of 3,636 households, which by calculating through the modified Cochran formula, 374 households were obtained. The number of questionnaires for each village was determined in proportion to the population of each village. Then, selection of households at the village level was done through simple random sampling method so that the principle of equal opportunity to choose households was observed. Its validity was approved based on the expert opinion through content and Delphi methods and its reliability was calculated and confirmed through study of the guidebook and using Cronbach's alpha coefficient (70%-85%). Finally, the collected data was analyzed in the SPSS software environment using one-sample sign test and Friedman test. According to the results obtained from the one-sample sign test, it was found that factors of the existence of infrastructure facilities and services, government measures and support and the required capital supply with first to second priorities and an average of 4.65, standard deviation of 0.49 and significance level of 0.0001 are effective in entrepreneurship development in rural areas.

Key words: Rural entrepreneurship; rural development; entrepreneurship; Bardaskan

Introduction

Statement of the problem

Today, the rural areas of developing countries including Iran are faced with significant challenges compared to other areas. These problems consist of the rapid decline in employment in the main part of the rural economy (i.e. agriculture), unfavorable socio-cultural and environmental conditions of villages, population aging and so on (Pato & Teixeira, 2013: 2). In these countries, different programs and policies have been adopted for rural development and, in a sense, for the cessation of unemployment, inequality, poverty and hunger, among which we can refer to agricultural services to farmers, rural credit, cooperatives, constructions and so on; however, unfortunately no progress was made for rural communities in most of these programs due to management weakness (Suvedi, 2010: 188). Rural problems can be examined in two sections of agriculture and use of the potential of non-agricultural development. To overcome these two levels of problems in rural areas, we need to benefit from coherent actions and policies in various areas such as economic, social, cultural and educational fields with the aim of developing the rural areas (Frankovich, 2010: 53). Despite these two major problems in villages, the issue of rural development was placed on the agenda of governments and international institutions such as the United Nations, FAO and the Organization

for Economic Cooperation and Development and according to the experiences of other development programs, entrepreneurship in general and rural entrepreneurship in particular were raised as the key to rural development. For politicians, rural entrepreneurship is a key strategy to prevent rural depopulation. For farmers, it is a tool to increase revenue; for women, it is an opportunity to work at home and for youths, it is a job opportunity in the rural environment (Pato & Teixeira, 2013: 2). In recent decades, experiences of rural development in different countries have shown that the injection of capital and technology can play a role in rural development, and entrepreneurship as a central force for rural economic growth and development can realize these two factors in the rural environment (Taqibeigi, Sharifi & Khosravipour, 2015: 161). Although in Iran, as in other countries, the importance of entrepreneurship has been recognized, this attention is further paid to urban areas and planners and economists have focused their attention solely on the economic space of entrepreneurship and have taken no notice of individual, social, environmental and institutional factors which positively and negatively affect the entrepreneur and are remembered as the effective factors in entrepreneurship development (Roknaldin Eftekhari & Sojasi Qidari, 2010: 41). Entrepreneurship development is a complex, long-term and inclusive process (Ahmad Amini, Amani Tehran & Soqzchi, 2010: 36). It should be mentioned that an entrepreneurial activity in the village is shaped by various factors, which has a variety of positive and negative effects and outcomes and based on the opportunities facing the rural entrepreneurs, these factors can be effective in developing entrepreneurship (Roknaldin Eftekhari & Sojasi Qidari, 2010: 41). In this way, entrepreneurship development in rural communities needs the preparation of cultural and social fields, cooperation of educational systems, administrative and financial structures and other supporting mechanisms (Hoseini-niya, 2008: 19). The above-mentioned difficulties plus low level of participation of villagers in the process of rural development, weak management, lack of motivation for progress among people, lack of entrepreneurial spirit and lack of proper and optimal use of natural and human resources available in villages are among the effective factors in rural instability (Sa'edi, 2009: 259). This has caused that the rural areas in Iran and the area under study are faced with the weakness of agricultural foundations and are not able to provide appropriate socio-economic indicators for rural development. Exploratory studies and field observations of rural settlements in the central district of Bardaskan indicate that in this area, the level of income is low. Employment rate in non-agricultural jobs, especially in the sector of processing industries, is very low, whose manifestation can be seen in irregular migrations from villages. Despite the proportion of 53% ruralization in the region, during a period of 20 years from 1996 to 2016, the rural settlements of the city have been faced with negative population growth rate, which shows the necessity of studying the research subject in this area. Given the new perspective proposed in the socio-economic structure of the country's rural community, entrepreneurship can provide an appropriate combination of different types of agricultural, industrial and service activities for the rural environment in order to get rid of the problems existing in the village. Undoubtedly, understanding the causes and factors influencing entrepreneurship development in the area under investigation and prioritizing them to provide a suitable model for the development of entrepreneurship in the region as an objective can be a necessity and an effective step towards sustainable rural development. Accordingly, the main question of this article is what are the factors influencing entrepreneurship development in rural areas of Bardaskan.

In this study, rural entrepreneurship development is regarded as the "dependent variable". Various effective factors in rural entrepreneurship development including economic, social, cultural and environmental factors and infrastructure and institutional (organizational) services are considered as the research "independent variables". After identifying the factors, the impact of each of them on rural entrepreneurship development as the dependent variable is examined. The following hypotheses have been developed to achieve the research goals and to answer the research question:

- 1) It seems that government performance and support play an effective role in rural entrepreneurship development.
- 2) The existence of infrastructure facilities and services has an important effect on rural entrepreneurship development.

Research background

Study of the available information resources suggests the increasing attention to research in the fields associated with entrepreneurship in the research and scientific centers of different countries over the last few decades. The studies conducted can be divided into several groups. Among the studies, some investigations have mainly focused on the role of entrepreneurship in rural development, including the research by Qasemi Siyani (2009), Heidari Mokarrar, Hashemi and Pourebrahim (2012), Izadi (2012) and Mollashahi and Tabrizi Dokht Fard (2013). In another group of studies, the impact of entrepreneurship on agricultural development has been the focus of attention, including the research by Sojasi Qidari, Paluch, Roknaldin Eftekhari and Sadeqlou (2011), Ma'soumi and Zamani (2014) and Kalager and Aqaei (2014). In another section of this division, studies can be included that address different aspects of the characteristics of entrepreneurs and their attitudes towards the issue of entrepreneurship. Although in most of the aforesaid studies, entrepreneurship-related issues have implicitly been presented, the research that has been more clearly focused on the factors affecting entrepreneurship development is limited. It should be stated that rural entrepreneurship topics in both external and internal studies are one of the growing and updated areas. What has been discussed below includes an overview of a number of empirical studies related to the field of entrepreneurship, rural entrepreneurship and rural development in Iran and several other countries.

- In a paper entitled "Investigating the factors influencing the growth of entrepreneurship in strengthening rural communities for sustainable development", Buzarjomehri, Rumiani and Esmaeili (2014) state that in the last few decades, entrepreneurship has become a strategy for the development and prosperity of human societies and identifying the factors affecting the growth of entrepreneurship is one of its requirements. The research results demonstrate that on one hand, entrepreneurship has led to increased agricultural production, renovation of rural community, increased employment in the agricultural sector and

provision of facilities such as food and housing and on the other hand, it has prepared the ground for the investment of financial institutions to promote the quality of life of villagers and holding training courses to set up non-agricultural businesses.

- Taqdisi and Hashemi (2015) conducted a study entitled "Analysis of the factors influencing entrepreneurship development in rural areas" and argued that the enhancement of entrepreneurship and creation of a right platform for its development are tools for the development of the country since entrepreneurial activities with high efficiency lead to economic development. The research findings reveal that economic, social and infrastructural factors in rural entrepreneurship do not enjoy favorable conditions. Out of these factors, infrastructure has the greatest impact on entrepreneurship development and by improving this factor, conditions for expanding entrepreneurship can be facilitated.

- In their article entitled "Examining the factors affecting entrepreneurship development in rural areas", Heidari Mokarrar and Mohebbi (2012) announce that creation of business and self-employment in villages is one of the important issues in the country. Thus, identification of the factors affecting entrepreneurship is also essential. In the same vein, results and suggestions like attention to entrepreneurship as the most fundamental factor in rural development, elimination of social problems and income poverty in villages, creation or discovery of ideas and identification or selection of valuable ideas, normalization of entrepreneurial culture, government support for entrepreneurial activity and the growth of entrepreneurial culture in rural areas through education are raised.

- In his book called "Rural Entrepreneurship", Sayyad Bidhendi (2012) refers to the role of Islamic councils and rural municipalities as popular institutions which can play a basic role in rural entrepreneurship development through policy-making, management and implementation of various educational programs, development of necessary infrastructure, help to attract financial resources and things like that and pave the way for the development of rural entrepreneurship.

- In their book entitled "An introduction to rural entrepreneurship", Movahhedi and Ya'qoubi Farani (2012) believe that the elimination of challenges such as unemployment, the increasing demand for agricultural products, inappropriate income gaps and so on in villages requires a kind of rethinking in the agricultural and rural development programs and policies of the country with the injection of an entrepreneurial approach. The mentioned book introduces integrated, combined and economic models to develop entrepreneurship in rural areas. The distinctive part of the book includes the attention to two categories of rural entrepreneurship and rural cooperatives and entrepreneurship and the role of rural women in entrepreneurship development.

- In their joint article entitled "Rural Entrepreneurship in India: Challenges and Problems", Brijesh Patel and Chavda (2013) investigated the challenges of entrepreneurship in India. In this study, challenges and problems of rural entrepreneurship in India have been divided into several groups, the most important of which include financial problems, lack of funds, lack of infrastructure facilities, marketing problems and the existence of intermediaries, management problems and income formalities and human problems and low levels of skills. The above-mentioned study has introduced all of them.

- In an article entitled "Entrepreneurship Challenges in Africa: Eastern Cape", Ngorora and Magoo (2013) maintain that entrepreneurship has contributed to the welfare of people, and financial affairs, being away from the capital and not having financial collateral are among the challenges of rural entrepreneurship in the region. They also believe that the establishment of the National Development Fund is among the necessities of entrepreneurship development in rural areas.

- Olo Vatin and Ajila Kennedy (2013) performed a study in the University of Botswana in South Africa entitled "Transformation of the local community with the development of rural entrepreneurship" and observed that entrepreneurship development is a vital program for increasing livelihoods and sustainable rural development, which can reduce unemployment, poverty and environmental problems and lead to useful job creation and increased progress at the local level. In this paper, a 10-step approach has been provided for rural entrepreneurship development as a factor in the transformation of the local community and its expansion. In this regard, we can refer to the increased use of local raw materials available for rural industries, help to increase self-confidence through education and packaging and marketing of agricultural products.

Research methodology

Geographical features of the region

The statistical population of this thesis consists of rural settlements in the central district of Bardaskan in Razavi Khorasan province. The central district of Bardaskan is located in the northeast of the city. This district is restricted to the city of Sabzevar in the north, Shahrabad District in the south, Kashmar and Khalilabad in the east and northeast and Anabod in the west. The approximate area of this part of the city is about 1061 square kilometers, which forms around 12% of the total city area (Agricultural Jihad of Razavi Khorasan, 2016). This part consists of two rural districts (one, next to the city and the other, near the mountain) with 149 villages, of which 14.1% is inhabited and 85.9% is vacant. According to Population and Housing Census of 2016 in the central district of Bardaskan, 38605 people lived there in the form of 12273 households, of which 36.6% reside in rural areas of the central district. One of the most important features of the central district in terms of population distribution despite 52% rural population distribution in the whole city is the superiority of urban population to rural population in terms of number, the most important cause of which is the existence of Bardaskan as the city center in this district (Iran Statistics Center, results of Population and Housing Census of 2016).

Research method

The present research is an applied study in terms of purpose and a descriptive-analytical study with a case study approach in terms of methodology. The research statistical population comprised 22 villages with over 100 inhabitants in the central district

of Bardaskan, out of which seven villages were selected from the rural district next to the city and fifteen villages from the rural district near the mountain.

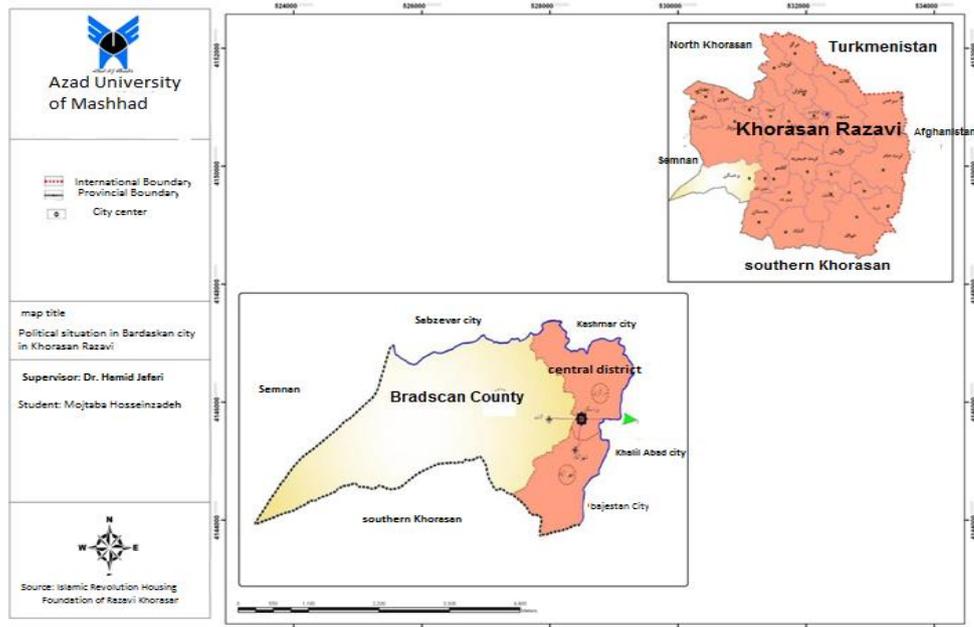


Fig. 1. Location of research area. Source: Islamic Revolution Housing Foundation of Razavi Khorasan, 2011

These villages include the villages of Shafi'abad, Kalatenow, Abnou, Seifabad, Keshmar, Aliabad and Sa'adatabad in the rural district next to the city and villages of Aq Mehdi, Sarborj, Kasef, Khommi, Bijvard, Hodk, Kaboudan, Nezamabad, Khaneqah, Khor, Syr, Khoushab, Zirvaqt, Sange Pir and Shamsabad in the rural district near the mountain. In this research, with respect to the limited statistical population (number of villages including above 100 people), sampling was not performed and all the villages of this district were considered as the statistical population. The population of these 22 villages in 2016 amounted to 10,331 people in the form of 3,636 households, which by calculating through the modified Cochran formula, 374 households were obtained. The number of questionnaires for each village was determined in proportion to the population of each village. Then, selection of households at the village level was done through simple random sampling method so that the principle of equal opportunity to choose households was observed. In this way, based on research hypotheses and goals, a questionnaire with over 100 questions was prepared and made available to the supervisor and advisor during several steps. After applying step changes, the research variables were ultimately developed in a questionnaire with 2 main components and 39 items rated on a 5-point Likert scale.

Reliability level of the questionnaire was obtained to be 0.75 using Cronbach's alpha coefficient, which indicates the normality of data (Table 1).

Table 1. Cronbach's alpha coefficient of the questionnaire headings

Questionnaire headings	Obtained coefficient
Government supportive measures	70%
Existence of infrastructure facilities and services	80%

Source: Research findings, 2017

For data analysis and use of a proper statistical method, the assumptions for entering the test type were examined because the research variables were of a distance type. To this end, non-normality of data distribution was confirmed through Kolmogorov-Smirnov test and the nonparametric one-sample sign test was applied to answer the hypothesis. Additionally, SPSS software and dispersion indicators such as frequency, mean and standard deviation were used for analyzing the descriptive data. Finally, effective factors were prioritized using Friedman test.

Research theoretical foundations

Entrepreneurship is the key and engine of economic development (Schumpeter, 1934) in today's world. Currently, countries that are thinking more about their economic development, especially rural development, view entrepreneurship and the ways to develop it as a necessary and important element in the country's economic planning.

Rural development

To eliminate extreme poverty in rural areas and improve the quality of life of villagers, create employment and also increase their productivity, the concept of "rural development" was born (University of Science and Technology, 2014: 2). The World Bank defines rural development as a strategy to improve the economic and social life of poor villagers; poor villagers are meant to be smallholder farmers and rural renters (Ebrahimi, 2014: 26). In another definition, rural development essentially means a fundamental change in all economic and social aspects and human relationships in villages so that the living conditions of villagers can gradually be improved and all the people of the village will enjoy its benefits (Hashemi et al., 2011: 39). The Iranian

Rural Development Institute also defines rural development as follows: A comprehensive, harmonious and endogenous process within the framework of which the capacities of rural communities will grow to meet the basic material and spiritual needs and effectively control the forces forming the "ecological, social, economic, institutional and territorial" system of local settlement (Rural Development Institute, 2002: 35). Waterson offers a special definition of rural development. He believes that rural development is a multi-section compound activity including development of agriculture and development of social facilities for every rural person (Asayesh, 2009: 22). For rural development, Enayatollah refers to components such as increased agricultural productivity, change in unemployment and employment rates, change in income distribution, changes in territorial ownership, changes in the power pyramid and patterns of participation in decision-making and an increase in social mobility which leads to a change in the system of stratification and power, changes in indicators such as education, access to educational facilities, population to physician ratio, number of clinics, settlement status, rural roads, electricity supply, nutrition and also changes in values, beliefs and tendencies (Azkia, 2008: 36). Rural development is a process that begins with meeting the basic needs of rural communities and ends in building confidence in the rural population. This is a comprehensive process of social and economic objectivities, which should seek the transformation of rural communities and the provision of reliable and better livelihood for the rural population. Rural development is a process of analyzing, identifying and determining problems and difficulties and proposing appropriate solutions for their resolution. This process usually appears in a program or plan that seeks to deal with the created problems (Moti'ei Langroudi, 2013: 79). In the field of rural development, a new concept called "rural revitalization" has also recently been raised. Although these terms are often used interchangeably, they actually indicate a distinct process. "Development" refers to the process of progressive change or modernization. Electricity supply for rural areas is a development project. "Revitalization" further refers to a periodic process and indicates the fact that there is a floating economy that is in recession and needs corrective measures in order to return to its previous conditions (Woods, 2011: 242). The proposed definitions are mainly about promoting the living standards of the poor people of the village in the form of improving their economic situation while the reality is that the goal of rural development, like the general concept of development, is not simply to change the situation of the villages in economic terms, but it seeks the balanced socio-economic development of certain regions and areas along with special attention to the maximum utilization of local resources and broader and more equitable distribution of the benefits of development. This development is not merely in the form of an improvement in agriculture and per capita income but is presented as a comprehensive concept that addresses a wide range of issues (Faraji Daraykhani, 2012: 23).

Entrepreneurship

In spite of the current wave of interest in entrepreneurship, this area has suffered shortage and lack of definition and general agreement on entrepreneurship (Boudelaei & Zare', 2013: 21). It should be said that this shortcoming is not due to the lack of opinions on the nature of the phenomenon of entrepreneurship. A quick look at the historical course of the concept of entrepreneurship shows that initially, entrepreneurship has just been addressed in the field of music. Then, in 1933, entrepreneurship has entered into newer and wider business areas. Various definitions of entrepreneurship have been provided. Social scientists, psychologists, economists and management scientists have specific definitions for entrepreneurship. The definitions of entrepreneurship can be classified in one of the following three categories: Definitions that emphasize personality traits or characteristics; Definitions that emphasize the process of entrepreneurship and its outcomes; Definitions that focus on activities done by entrepreneurs (Abbaszadeh, 2014: 4) (Table 2).

Table 2. The main streams of entrepreneurship research and definitions

No.	Stream	Major subjects	Question line
1	Management	Skills, entrepreneurship management style and growth trend	Behavior? (How)
2	Economy	The relationship between the economic environment and entrepreneurship	Effects? (What)
3	Sociology	Entrepreneurs from different societies and cultures	Causes? (Why)
4	Psychology	Personality traits and entrepreneurial process	Causes? (Why)

Source: Zabihi and Moqaddasi, 2009: 17

Global Entrepreneurship Monitor (2008) which is an international organization in the field of entrepreneurship defines entrepreneurship in the field of small businesses that are done by people and usually have fewer than 100 employees. Shane and Venkataraman (2000) have defined entrepreneurship as follows with respect to the process angle of view and based on the concept of opportunity: Entrepreneurship is an activity including the discovery, evaluation and exploitation of opportunities in order to introduce new goods and services, methods of organization, markets, processes and new raw materials through innovative actions and organization that did not exist before. This definition embraces the following explanations: 1) the cause and time of the emergence of entrepreneurial opportunities; 2) the sources of these opportunities and the types of forms they take; 3) opportunity discovery and evaluation processes; 4) how to provide resources to exploit these opportunities; 5) taking advantage of opportunities: why, when and how some people, and not others, discover, evaluate, and exploit these opportunities. It should be remembered that in the aforesaid definition, the spirit of creativity or innovation lies in the fundamental dimensions of the opportunity (Shane, 2012: 6). Richard Cantillon defines entrepreneurship as a risk-taking process for organizing production factors to provide the product or service demanded by the market. Alfred Marshall (1890) considers entrepreneurship as an important factor in production along with land, capital and labor force. EU Commission (2003) defines entrepreneurship as a way of thinking and process of creating and developing economic activities by combining risk-taking and creativity with management or an organization (Taqdisi et al., 2015: 86).

Factors affecting rural entrepreneurship development

Entrepreneurship development is a complex, long-term and inclusive process that plays a crucial role in the economic growth and development of countries. Economic growth of countries is indebted to entrepreneurs and their entrepreneurial activities. Hence, entrepreneurship development is a prerequisite for the economic growth of countries. Development and promotion of entrepreneurship is one of the serious needs of the Iranian economy. Entrepreneurship development in society is influenced by different factors. Global Entrepreneurship Monitor introduces the following factors as the effective factors and conditions in the development of rural entrepreneurship: Government policies, government plans, education and training, research and development transfer, commercial infrastructure, market openness (or barriers to entry), access to physical infrastructure and cultural and social norms (Ahmad Amini, Amani Tehran & Soqzchi, 2010: 36). From the perspective of Lordkipanidze, rural entrepreneurship development depends on cultural, social, environmental, infrastructural, economic and institutional factors (Najafi Kani, Hesam & Ashour, 2014: 5). Other factors leading to the development and expansion of entrepreneurship in rural areas include the following: 1- Creating the environment and grounds for pre-entrepreneurship of "capacity building"; 2- preparing the ground for self-confidence of "empowerment"; 3- intensifying growth through mobilization.

Based on the above-mentioned definitions, it can be said that various factors influence the development of entrepreneurship, which can be divided into two general groups: 1) individual factors and 2) environmental factors (Velaei et al., 2015: 153). Roknaldin Eftekhari and Sojasi Qidari consider socio-economic factors as effective in sustainable rural entrepreneurship cycle in addition to individual and environmental factors (Fig. 2).

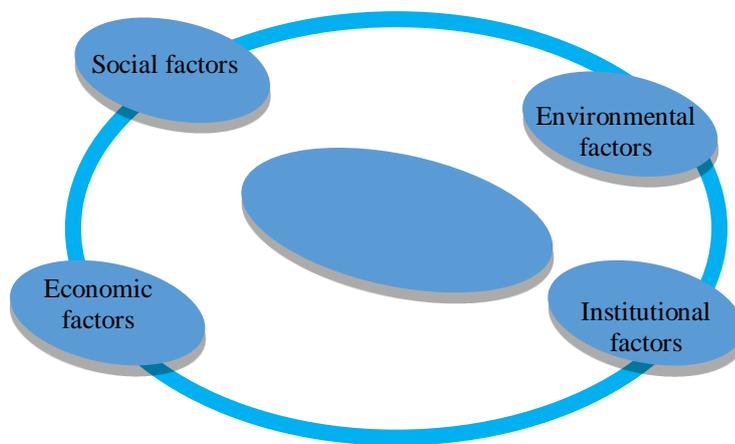


Fig. 2. Cycle of effective factors in rural entrepreneurship development. Source: Roknaldin Eftekhari and Sojasi Qidari, 2010: 49

Rural development is largely dependent on entrepreneurship, and all the national and local facilities and factors of that region must be mobilized. As rural development cannot be achieved solely through the provision of public and social facilities and infrastructure, rural entrepreneurship development also requires various factors and infrastructures. Naturally, there are unknown capacities in villages to launch entrepreneurial activities and identifying them can help entrepreneurship development. These capacities and factors are presented in Fig. 3 as the causal factors of entrepreneurship development (Seidaei & Sadeqi, 2014: 116).

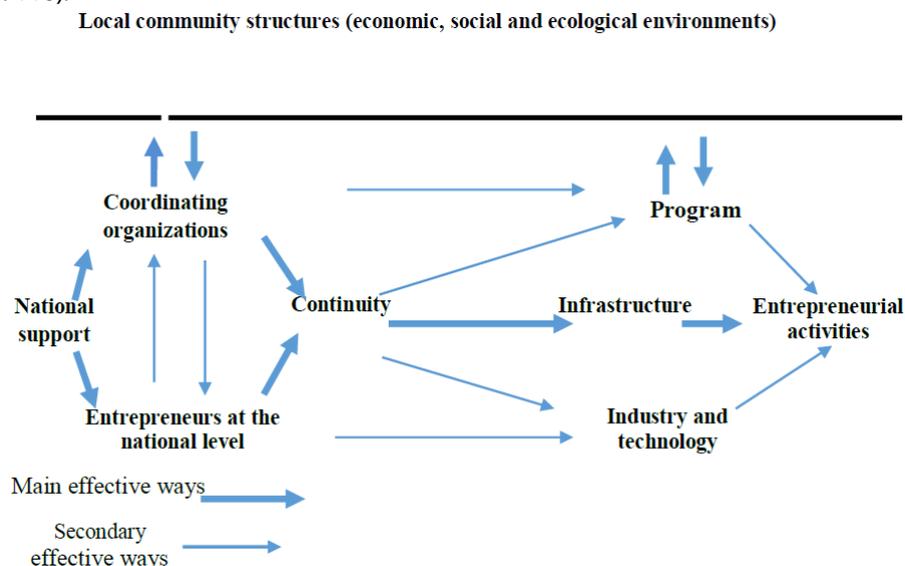


Fig. 3. The causal model of entrepreneurship development in rural areas Source: Seidaei and Sadeqi, 2014: 117

Combined model of factors affecting rural entrepreneurship development

For rural entrepreneurship development and its effectiveness in rural environment, a combination of factors influencing entrepreneurship should be taken into account so that its effectiveness in the rural environment is further displayed. For this reason, today a holistic and integrated view in planning shows that the rotary-combined perspective in rural entrepreneurship development is more effective than the linear and one-dimensional look (Business Commission, 2014).

It should be mentioned that entrepreneurs cannot take decisions on exploiting entrepreneurial opportunities in a vacuum, but they are influenced by the context in which they work; this context includes economic, socio-cultural, environmental, infrastructural and institutional factors (Shane, 2012: 181). With regard to the above factors and models, it can be said that rural entrepreneurship as a new concept requires an integrated and combined view so that within its framework, mentality and motivation for innovation, creativity, risk-taking, participation, competencies, capacities and capabilities become manifest and organized. As Allison and Anderson state, "entrepreneurship is a hybrid activity that is influenced by all the internal and external factors of life and also affects all aspects of life" (Roknaldin Eftekhari & Sojasi Qidari, 2010: 171) (Figure 4).

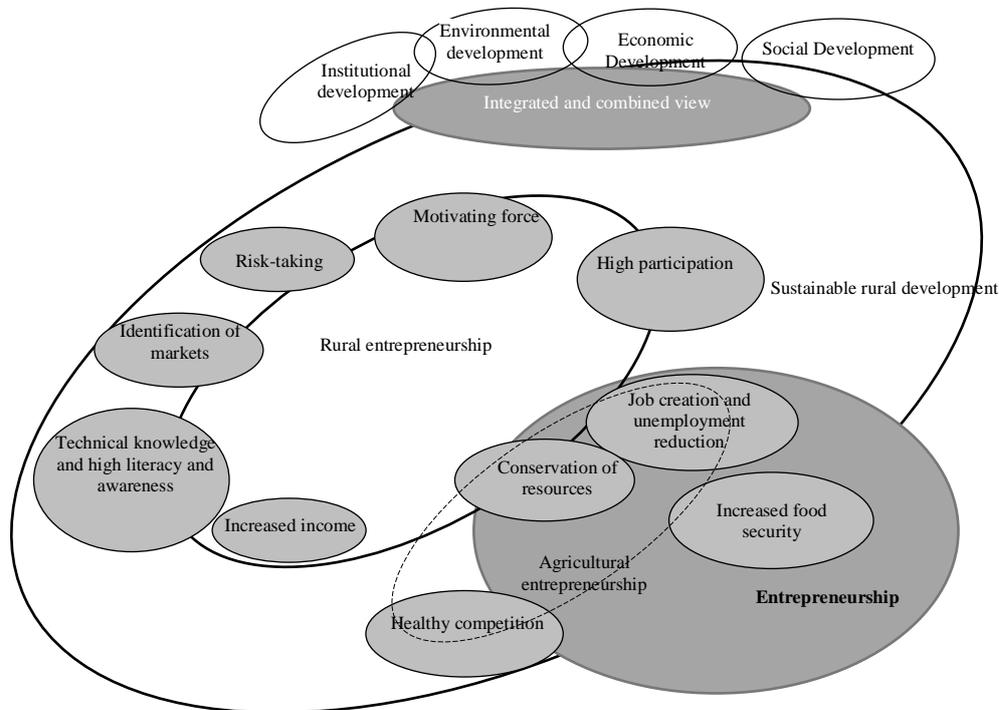


Fig. 4. Factors affecting rural entrepreneurship development based on the integrated view. Source: Roknaldin Eftekhari and Sojasi Qidari, 2010: 174; Movahhedi and Ya'qoubi, 2012: 93

Results

In the present study, data analysis was made using the questionnaire and other resources, and prioritization of the variable was first studied by descriptive statistics such that for each of the components, tables with frequency distribution, mean and standard deviation as well as the percentage of respondents were determined. Afterwards, nonparametric methods have been employed to identify, evaluate and test the effective factors in entrepreneurship development in rural areas.

Descriptive findings

Considering the results obtained from the statistical population, 59.1% were male and 40.9% were female. Besides, 87.9% were married. The most frequent age of respondents was 56 years with 25.9% and the age group from 25 to 35 years was second in rank with 22.5%. According to the studies conducted, 31.1% of the participants had elementary education, 19.3% had secondary education and 18.7% had a diploma and only 1.1% had a college degree. The highest frequency distribution of the status of individuals based on the type of occupation includes agriculture with 64.1% and the least frequency distribution is related to industries with 2%. As to the creation of entrepreneurial activity in the region, 88.5% of the respondents believed that no entrepreneurial activity has been done in the area. Based on the results, 92.5% of households did not engage in any entrepreneurial activity in the family environment and only 7.5% of households have started to create an entrepreneurial activity.

Inferential analytical findings

As stated in the section of the research method, to identify the effective factors in entrepreneurship development in rural areas of the central district of Bardaskan city, the following variables have been applied: 1) government measures and support and 2) the existence of infrastructure facilities and services in 39 items (Table 3).

Table 3. Introducing the research indicators and components

Indicator	Components or items
Government supportive measures	The efforts of local authorities to introduce the features of the village, coordination between different government departments in creating a new business, trust in the private sector to conduct economic affairs in the village, giving more authority to local executives to accelerate administrative work in establishing small businesses, compilation of the national document for entrepreneurship development and rural business, allocation of production subsidies to rural producers, establishing and strengthening cooperation between the government, small businesses and large organizations, welcome to the new ideas and plans of the villagers, changing and modifying the systems of providing administrative services to small businesses, creating counseling centers in rural areas by the government, reducing tariffs for public utilities (water, electricity, gas) for newly established small manufacturing units, entrepreneurship basics training to rural families
Existence of infrastructure facilities and services	The availability of suitable platforms and infrastructure (electricity, water, telephone, etc.), creation of rural entrepreneurial companies, the existence of proper technological infrastructure in villages (such as IT and ICT), appropriate communication paths, the existence of convenient communication facilities such as telephone and Internet

Source: Research findings, 2017

Out of the variable of government measures and support, entrepreneurship training to families with a mean of 4.87 and standard deviation of 0.41 and after that, financial and tax support as well as allocation of government subsidies to producers with a mean of 4.84 and standard deviation of 0.51 have had the greatest effect on entrepreneurship development in rural areas, and giving more authority to local executives of "councils and rural municipalities" with a mean of 4.05 and standard deviation of 1.26 has had the lowest impact. According to Table (3), out of the variables of infrastructure facilities and services, the role of infrastructure platforms (water, electricity, etc.) with a mean of 4.87 and standard deviation of 0.51 and creation of rural entrepreneurial companies with a mean of 4.84 and standard deviation of 0.51 have had the highest impact on entrepreneurship development, and the lowest effect is related to communication facilities like telephone with a mean of 4.45 and standard deviation of 1.18. To determine the effectiveness of each factor in entrepreneurship development in villages, the items related to each indicator were combined and the nonparametric one-sample sign test was applied. Since the items are evaluated on a 5-point Likert scale, numerical desirability of the nonparametric one-sample test to answer each indicator was considered to be the median of "number 3" from 1 to 5 so that the values less than or equal to 3 represented lack of effectiveness and the values higher than 3 indicated effectiveness. Based on the research findings in Table (4),. For the first hypothesis, the variable of the role of government supportive measures in rural entrepreneurship development was examined with a mean of 4.67, standard deviation of 0.37 and median of 4.77. Further, the significance level of its one-sample sign test is equal to 0.0001 which is less than 0.05. Therefore, this hypothesis stating that government supportive measures are effective in rural entrepreneurship development was accepted.

As to the second hypothesis, the role of infrastructure facilities and services in rural entrepreneurship development was studied in the same way and based on the obtained results, mean, standard deviation and median of the variable were respectively equal to 4.68, 0.63 and 5. Additionally, the significance level of its one-sample sign test was equal to 0.0001 which is lower than 0.05. Thus, this hypothesis indicating that the existence of infrastructure facilities and services is effective in rural entrepreneurship development was confirmed. (Table 4)

Table 4. Research hypothesis testing based on the one-sample sign test

Factors	Mean	SD	Median	Number less than median	Number equal to median	Number more than median	Significance level
Role of government supportive measures in rural entrepreneurship development	4.67	0.37	4.77	1	0	346	0.0001
Role of infrastructure facilities and services in rural entrepreneurship development	4.68	0.63	5	7	17	323	0.0001

Source: Research findings, 2017

After approving the hypothesis indicating the effectiveness of the introduced indicators in entrepreneurship development in rural areas, the difference and prioritization of the effective factors in rural entrepreneurship development were determined, using Friedman test. According to the obtained results, it was found that there is a priority between the factors affecting entrepreneurship development. (Table 5)

Based on the results, out of the specified factors that influence entrepreneurship development, the existence of infrastructure facilities and services with a mean of 2.94 has the first priority; government measures and support with a mean of 2.26 have the second priority

Table 5. Friedman test for the prioritization of factors affecting rural entrepreneurship development

No.	Statistic	Value
1	Friedman chi square	91.193
2	Degree of freedom	3
3	Significance level	0.0001

Source: Research findings, 2017

Conclusion

Based on the results, 94% of the respondents considered the existence of infrastructure and 93% of the appropriate communication paths and 89.6% of the existence of the technological infrastructure in the development of entrepreneurship, which is useful in view of the proximity of sample villages to the city center and the placement of most of these settlements on the main roads of the province and the country, it can be created by creating various centers, such as non-road resettlement centers and providing technical services to cars helped in the enhancement and development of rural entrepreneurship. Besides, given that communication paths between villages are not of desirable quality, the level of interaction between villagers increased by improving the quality of these communication paths, which led to the development of entrepreneurship. Although most rural centers have telephone and internet access, the coverage of these services is unfortunately weak. By strengthening telecommunication towers, communication conditions of villagers with the world outside can be facilitated, which can be helpful for introducing villagers to new farming practices, new businesses and so on. Additionally, 98.1% of the respondents believe that the government can strengthen its role in entrepreneurship development by training families. Also, tax support (according to 97.1% of the respondents) and cooperation between the government and small businesses (according to 96.9% of the respondents) can be effective in strengthening the role of government in entrepreneurship development. In this regard, the government can familiarize people with the field of entrepreneurial activities by dispatching missionaries and promoters and using university professors in the field of entrepreneurship and here, it is best to train dehyars (head of rural municipalities) and educated youth. In another section, it is suggested that the government use its power in the major state-owned industries and engage in the establishment of small industrial workshops in rural centers so that by producing mother plant raw materials, employment is expanded. Mining development in northern heights of the district can be one of the government measures in employment generation and entrepreneurship development in complementary jobs.

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