

## Factors Facilitating Entrepreneurship and Self-Employment in Agriculture Sector

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**Abstract:** The main purpose of the study was to analyze factors which facilitate entrepreneurship and self-employment in agriculture sector. To achieve this, a surveying methodology was used. Statistical population of the study consisted of all agricultural students in Bu-Ali Sina University. Among them, 122 were selected randomly as samples. Data gathering tool was a structured questionnaire. The face validity of the questionnaire was verified by a panel of experts as well as reliability of the questionnaire was tested by Cronbach's Alpha coefficient and it was 87 percent. In the data analysis part of this study, factor analysis method was used in order to achieve key elements and factors. Results showed that factors which facilitate entrepreneurship and self-employment in agriculture sector could be classified into four categories. The four-factor presented by the factor analysis method explained 44.7% of the total variance. The first category of the factors was labeled as educational factor. This factor explained 15.13% of the total variance and was identified the most important element. At the end, some recommendations have been presented in regard to develop entrepreneurship and self-employment in agriculture sector.

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### Introduction

In recent years, a special attention is paid to entrepreneurship and entrepreneur in different countries and most scholars believe that entrepreneurship and entrepreneurs have a considerable role in economic growth and development especially in developing countries (Rahmati & et al, 2010). In such a way that entrepreneurship is considered one of the main factors in competitive markets and entrepreneur companies response the environmental challenges better and faster compared to other companies (Jeemens, 2008). Entrepreneurship

plays also an important role in social development of different societies. From the economic viewpoint, entrepreneurship referred to the production factors that assists the economic growth through discovering and creating new opportunities and from social viewpoint, contributes the improvement of social situations through increasing job or employment chances (Mohapatra & et al, 2007). The category of entrepreneurship in most developed countries and all developing ones has been considered as the most basic source of development (Macline & Richard, 2004). In agricultural sector, entrepreneurship

considered as a complimentary section in economy and job-creating activities due to response or react to the stagnancy and problems available in agricultural sector and also as a survival strategy for rural families (Petrin, 1994, Smits, 2004). Therefore, the development of entrepreneurship in agricultural sector can act as a crucial force for the development of this sector (Sharifi & et al, 2009). In general, entrepreneurship is a powerful tool for identifying opportunities, acquiring benefits, and removing such problems as unemployment, the lack of dynamic human resources, low efficiency, quality reduction of products and services, and economic stagnancy (Maclin & Richard, 2004). With regard to the importance and contribution of entrepreneurship, it is essential that entrepreneurship and entrepreneurs in all sectors including agricultural sector be supported and developed. Agricultural sector is one of the major economic sectors of the country that plays an important role in economic development of country due to its high potential and special properties. However, in this sector the entrepreneurship trend is slow and complex, due to natural and climatic conditions and undesirable quality of resources. It is also expected more limitations concern to employment in agriculture. The average cost of creating employment in agricultural sector is considerably lower than that of industry sector. From viewpoint of foreign exchange investment, employment in agriculture is considered a relative advantage for this sector especially in case of shortage of foreign exchange (Zahedi & Kazerooni, 2000). Thus creating employment in agricultural sector through entrepreneurship should be planned as a strategic policy by the planners and policy makers In Iran. Accordingly, this study was an attempt to investigate the facilitating factors in developing entrepreneurship and self-employment in agricultural sector.

## Literature Review

The challenge of employment or the issue of unemployment is not only one of the most

important social problems in our country but also is considered the most important social challenge of the next few decades due to the rate of population growth in the country. In this vein, one of the basic and important tools for the governments can be the development of entrepreneurship. Agricultural sector as one of the important economic sectors can assist the policymakers take proper decisions against the challenge of employment in the country. In this regard, Noroozzadeh and Mehrabiyeganeh (2006) state that the development of entrepreneurship in applied and scientific higher education centers of agricultural is one of the efficient methods in increasing efficiency of human resources in agricultural sector. In this area, numerous investigations have been conducted. Below some of the most important empirical studies will be dealt with.

Khosravipoor and his colleagues (2007) in a case study about identifying influential factors in empowering entrepreneurship for Agricultural Scientific- Applied Instruction Centers presented some important indices. These were necessity of changing instructional methods, necessity of changing and improving educational contents, necessity of equipping educational centers, necessity of changing the students' enrollment and selection, and necessity of improving the organization and management system of the Agricultural Scientific- Applied Instruction Centers. Yaghubi (2008) in his research found a set of ways in order to promote entrepreneurship in agriculture sector include an especial support of the entrepreneurs, eliminate bribe and lawlessness, attracting the participation of entrepreneurship in economic activities, giving more authority and facilities for entrepreneurship activities, creating competition in production and marketing and proving entrepreneurship insurance. The findings of Jahanian investigation (2010) showed that the most important solutions for developing entrepreneurship in technical and vocational centers of Islamic Azad universities include creating entrepreneurship culture, entrepreneurship management, developing entrepreneurship instruction, creating entrepreneurship structure, developing

continuous learning, providing financial sources for entrepreneurship, and developing entrepreneurship through creative and innovative human forces. Tybjee and Vickery (1998) mentioned that the development of entrepreneurship is affected by the trends and policies of government, social conditions and economic situation. Klapper et al (2004) believe that governmental and economical laws and instructions influence the individual's tendency toward entrepreneurship. Shane et al (2003) believe that the motivation of individuals is an important factor in making decision about entrepreneurship activities. They stated that motivation is like a road map which helps investigators to choose the right route and to make the correct decisions in entrepreneurship process. The study by Jones and English (2005) revealed that we could increase the knowledge, skills and self-confidence of student through entrepreneurship instruction and empower them toward creating jobs of their own. Peak and Marshall (2006) emphasized the importance of education as the most important human wealth and the results of their study showed that the higher level education has a great effect on the performance of an entrepreneurship institute. Urbano et al (2011) studied the social and cultural factors effecting the development of entrepreneurship in Spain and came to the conclusion that tendency toward entrepreneurship is one of the most important and influential factors in emerging entrepreneurship behavior.

### Method

Present study aimed at to investigate the facilitating factors for entrepreneurship in agriculture sector through using a surveying methodology. In this method by sampling and studying selected samples from the target community, the distribution, frequencies and the relationship between variables have been studied. In this regard, the most common method for data collection is questionnaire. The accuracy of indices and variables in the questionnaire or face validity has been confirmed by a group of experts. In order to determine the reliability of the questionnaire, a pre-test process was used through filling the

questionnaires by 25 students and a Cronbach's Alpha test was used through SPSS software and it was 87% which shows an acceptable rate. The statistical population of this study was the agricultural students of Bu-Ali Sina University during 2011- 2012 academic year. A number of 122 samples were selected randomly and their attitudes towards factors facilitating entrepreneurship and self-employment in agriculture sector were reviewed. In this research both descriptive and analytic methods were used. In descriptive part, to describe the variables, such statistics as frequency, percentage, standard deviation, variance, and mean were used. In analysis section, factor analysis was used to access the key factors affecting the entrepreneurship.

### Results

In descriptive part of the results, personal status of the respondents was described. From the results the respondents' age was 24 years. About the gender's status of the students, findings showed that 51% were female and 49% male. Most of the students were at undergraduate level and only four percent were studying at postgraduate. According to the results, 84% of the target students rated their ability to establish an independent business in a level of high or average. This shows that there is a high level of entrepreneurship's capacity among the students.

As mentioned later, a factor analysis method was used in order to classify factors facilitating the entrepreneurship in agriculture sector. To determine whether or not the variables are usable for factor analysis, Kaiser-Meyer-Olkin (KMO) and Bartlett's tests is usually used. The KMO test was used to measure the sampling adequacy and Bartlett's Test of sphericity to determine the identity of the correlation matrix. If the KMO value is less than 0.5 the data will not be suitable for factor analysis if the value is greater than 0.7 the correlations between data will be appropriate for factor analysis (Kalantari, 2003). In this study, the Kaiser-Meyer-Olkin value (KMO=0.765) indicated an

adequate sampling for the factor analysis and the result of Bartlett's test of Sphericity was significant ( $p < .01$ ).

As shown in table 1, in the first round of the factor analysis, four factors were extracted.

these extracted factors had the highest amount of overlap (in terms of calculated variance). This means these factors can explain more than 44 % of the total discrepancy among the variables.

**Table 1: Number of component, initial Eigen values, % of variance and cumulative percent**

<b>Factors</b>	<b>initial Eigen value</b>	<b>% variance</b>	<b>of cumulative percent</b>
First factor	4.238	15.137	15.137
Second factor	3.321	11.861	26.997
Third factor	2.619	9.352	36.349
Fourth factor	2.338	8.351	44.701

Table (1) shows that the first factor (initial Eigen value =4.23) has the highest share and the fourth factor (initial Eigen value =2.33) has the lowest role in presenting variables. In general, four mentioned factors were able to explain 44.7 percent of the total variance. In table 2, the results from rotated matrix of the variables have been shown. The Eigen values, the numbers of extracted factors from rotated matrix, and each of variables have been also illustrated.

**Table 2: The results from rotated matrix of the variables**

Factor	Variable	Eigen value
Educational factor	Establishing growth and entrepreneurship centers in universities	0.518
	Creating skills in agriculture students	0.658
	Reducing costs of starting and opening new businesses	0.547
	Enhancing practical skills of agriculture students	0.632
	Increasing the number of practical courses	0.522
	Changing curricula and new methods of teaching	0.528
	Making the academic contents tailor to the labor market demands	0.671
	Having the ability and practical skills in agriculture	0.727
Financial and legal factors	Financial supporting of entrepreneurship in agricultural sector	0.534
	Providing bank's facilities for the agricultural graduates	0.594
	Reforming of legislation related to entrepreneurship in agriculture	0.566
	Removing administrative barriers of entrepreneurship	0.734
	Reforming tax legislation related to entrepreneurs	0.538
	Providing the necessary infrastructure in the agricultural sector	0.513
Infrastructural factors	increasing job opportunities in the public sector	0.502
	Access to facilities and financial resources for starting-up a new business	0.562
	Providing marketing facilities for agricultural products	0.611
	Introducing successful entrepreneurs to agricultural graduates	0.714
Cultural Factors	Media advertising about entrepreneurship	0.812
	Strengthening the entrepreneurial culture in the community	0.693
	Developing and strengthening Counseling entrepreneurship centers in the agricultural	0.614

**First Factor-Educational factor:** variables included in the first factor are as following: Establishing growth and entrepreneurship centers in universities, creating skills in agriculture students, reducing costs of starting, and opening new businesses, improving practical skills of agriculture students, increasing the number of practical courses and content appropriateness with labor market demands and change in subjects plans and new method of teaching. Thus this factor was called educational factor and its specific amount was 4.23 which is greater than all other factors. This factor has the greatest effect and importance in expressing variables and in general, accounts for 15.13 Percent of total variance of variables. Hence, in regard with developing entrepreneurship in agriculture sector, educational factor more than any other factor functions as a facilitating factor. Findings of study by Heidari (2003), Khosravipour et al (2007), Alambeigi et al (2009), Yaghoubi (2010), Tybjee and Vickery (1998), and Peak and Marshall (2006) confirmed the results of present study.

**Second Factor- Financial and legal factors:** variables included in the second factor are as following: The financial support of entrepreneurship in agricultural sector, provide banking facilities to the agricultural graduates, reform of legislation related to entrepreneurship in agriculture, reduction administrative barriers of entrepreneurship, reform tax legislation related to entrepreneurs and providing the necessary infrastructure in the agricultural sector. According to table 1, specific amount of this factor was 3.321. This factor accounts for 11.861 Percent of total variance of variables. Findings of study by Yaghoubi (2010), Jahanian (2010) and Klapper et al (2004) confirmed the results of present study.

**Third factor- Infrastructural factors:** variables included in the second factor are as following: Lack of job opportunities in the public sector, access to facilities and financial resources for starting a new business, facilitates marketing of agricultural products and introducing Successful entrepreneurs to agricultural graduates. This factor was called

**Infrastructural factor** and its specific amount was 2.61. In general, accounts for 9.35 Percent of total variance of variables. Findings of study by Yaghoubi (2010) confirmed the results of present study.

**Fourth factor- Cultural Factors:** variables included in the second factor are as following: Positive publicity in the media towards entrepreneurship, strengthen the entrepreneurial culture in the community and develop and strengthening counseling entrepreneurship centers in the agricultural. This factor was called **cultural factor** and its specific amount was 2.33. In general, accounts for 8.35 Percent of total variance of variables. Findings of study by Jones and English (2005), Jahanian (2010) and Urbano et al (2011) confirmed the results of present study.

### Conclusion and recommendations

Graduates' unemployment in agriculture sector has become as one of the basic challenges in the agriculture sector and this problem has engaged the policymakers and all stakeholders' organizations in order to find proper solutions in this regard. In this vein, entrepreneurship is considered as one of the most important solutions that can be as an appropriate attempt to create new employments and therefore this troubleshoot must be as the highest priority in the governmental policies. In recent decades, the issue of entrepreneurship and its development has created a series of entrepreneurship development policies. In this study, the factors facilitating entrepreneurship in agriculture sector was analyzed. The results of this analysis showed that, in general, four factors include educational, financial and legal, infrastructural, and cultural factors were identified as the most important factors in facilitating entrepreneurship. Thus, it is recommended that easy access to credits, granting low-interest loans to the students and graduates of agriculture field are of priority in government policies in order to accelerate and develop entrepreneurship in agriculture sector. Also, revising available laws and infrastructures could pave the way for



easy arrival of students and graduates in the field entrepreneurship and self-employment. In addition, given the importance of practical skills and the weakness of these skills in the graduates of agriculture field, it is recommended that the teaching methods of practical and skilled subjects be revised and more interaction and cooperation be exercised among universities and other administrative organizations involved in this field. Also, while increasing practical courses and defining related objectives, desired presentation of practical courses should be accomplished.

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