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## **Examine the Effects of Students' Social Capital Components on Entrepreneurship Intention (Evidences from: University College of Agriculture and Natural Resources, University of Tehran)**

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### **Abstract**

The main aim of this study was to investigate the relationship of students' social capital components and entrepreneurship intention. The statistical population of this study consisted of all students of University College of Agriculture and Natural Resources, University of Tehran (N= 2600) among which 155 students were accessed based on Cochran formula and through convenient sampling. Data were collected through a questionnaire face and content validity of which was approved by faculty members of Agricultural Management and Development Department of University of Tehran. Social capital was measured by four components (*i.e.* social participation, social coherence, social confidence and social communication). Reliability of the research instrument was measured by computing Cronbach's alpha coefficient which ranged from 0.72 to 0.88. Path analysis technique employed to investigate the relationship of social capital components and entrepreneurial intention. Results revealed that social participation and social coherence had a direct effect on entrepreneurial intention while social confidence and social communication had an indirect effect on it.

#### **Keywords:**

*Entrepreneurial intention, Social participation, Social coherence, Social confidence and communication*

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## INTRODUCTION

In recent years, social capital as a social phenomenon in modern society is creating new opportunities has been a matter of great concern social sciences (Saadat, 2009). Social capital is the raw material from thousands of daily interactions of people. This form of capital between specific individuals or social structures is not certain but also the space between people (Bullen and Ounyx, 2000). Social capital is a set of actual and potential resources that linked networks formed over time as institutional relationships. Finally he emphasized that it is so important to invest in social capital, and provide an opportunity to produce group cohesion as a group activity (Portes, 1998).

Compared to other forms of capital, social capital is intangible and informal relationships between people are hidden (Sedighbanay, 2009). Another definition of social capital is the result of the accumulation potential or actual the property of a durable networks of more or less institutionalized relationships of the people that membership is created in a group (Firuzabadi, 2006). Some of the key elements of social capital can be measured with Include: knowledge of public affairs, political and social motives of those who seek these types of knowledge are Public confidence in each other and informal cooperative participation in volunteer activities and in general it can be said that one of the main criteria for the recognition of social capital is the social relations and practices with one another and how they coexist in society (Adler, 2002). Social capital as a social phenomenon causes creative parenting ideas, facilitate innovation and risk-taking behaviors are (Coleman, 1990). All aspects of general social, economic, cultural and political influences that every society in economics and entrepreneurship that he is not ineffective social capital; So that it can be said that effective as a source of social capital formation and development is an entrepreneur and entrepreneurship.

Entrepreneurship is a social process. The economic and social fabric depends on the circumstances of the: First, entrepreneurs are people who are a product of his social environment, and second, the entrepreneurship is a social activity, resulting in the presence or absence to the nature

of entrepreneurship, social relations affects (Anderson, 2003). Therefore, it should be noted that social capital can influential on entrepreneurship. Supposed to understand these relationships need to measure the two main variables are visible in the community. As a structure of social cohesion, social capital variables, social confidence, collaboration and communication has been established to measure the variables to be analyzed. Entrepreneurial intentions is important and hidden aspect of entrepreneurial behavior according to Ajzen model (1991) and In other words, we recognize entrepreneurial behavior by investigate entrepreneurial intentions. Also, entrepreneurial intentions is basic infrastructure for entrepreneurial behavior (Bird, 1988).

It is generally concluded that entering the field of social entrepreneurship could be promoted to provide context, but this is partly responsible for higher education so that Arasteh (2003) believes that one of the goals of higher education centers that prepares graduates for work, and the entrepreneurial success of graduates in the field, depending on their personal and professional skills.

The successful graduates who are not only equipped with the specialized skills but also skills such as creativity, innovation, risk-taking, tolerance of ambiguity, ambition and confidence to succeed in their relative lies and universities develop the skills (Arasteh, 2003).

The Alumni agricultural Estimates indicate that the market needs of agriculture annual maximum of 110 thousand graduates from the fields of agriculture, while 230 thousand people each year in the fields of agricultural universities in the country graduates are on each year by about 25 to 52 percent of graduates are unemployed (Frahani, 2010). Therefore, unemployed graduates increase every year. This issue can be derived of two option, first lack graduates abilities to Creation Business and second it is lack Social potential. Generally, unemployment is as a problem there is unemployment in the community by each reason. In this study, examine the relation between social capital and entrepreneurial intentions in order to explain the effect of social capital on entrepreneurial intentions.

On the subject of entrepreneurship, more research is purely structural characteristics and lo-

cation have environmental and social capital as the most important factor is not taken into consideration (Ulhoi, 2004). It is also believed by Heydari that due to the growing trend of educated people, on the one hand and economic problems - the state of social entrepreneurship has gained momentum over the past years is the question (Shakiba, 2013).

Therefore this study was to assess the relationship between social capital and entrepreneurial intentions of students as future workers in this country are determined. In the following part of the research done in the field of social capital are mentioned. Rouse (2007) in their study of the factors explaining the national capital, human capital, social capital as factors of business success and Payment And concluded that the national capital, the direct effect of human and social capital and entrepreneurship effects are indirect and complex. Markman and Baron (2003) in their study found that entrepreneurship that higher levels of social capital compared with those with lower levels of social capital are likely to have higher probability of venture capital funding to attract. Other studies suggest that between Social Capital and there was a significant positive correlation with CE In addition, our results suggest that the components of social capital is able to predict changes in corporate entrepreneurship (Gholipur *et al.*, 2008). Ashena (2005) examined the relationship between social capital and entrepreneurship payment and the results indicate a positive and significant relationship between the dimensions of social capital and entrepreneurship. There is positive relationship between social capital and entrepreneurial intentions (Shakiba, 2012). Also it show that the relationship between social capital and gender is not significant; between male and female students is not significant in terms of entrepreneurial intentions. The results of this study indicate that social capital variables among students in

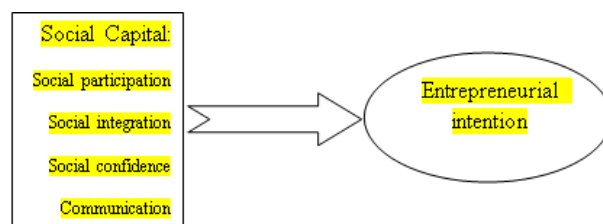


Figure 1: Theoretical frameworks.

rural areas is higher than urban residents, but this difference was not significant. This conclusion also applies to the variables of entrepreneurial intentions. The main purpose of this study was to investigate the relationship of social capital components and entrepreneurial intention of students and of particular interest were to:

- 1- Analysis of the relationship of social capital components and entrepreneurial intention in terms of gender.
- 2- Determining the most effective social capital component on entrepreneurial intention. In the figure 1 shown theoretical frameworks.

## MATERIALS AND METHODS

The present study was a correlation research that for data collection use of survey. The study's subject involves the factors influencing the entrepreneurial intention of students within the university college of Agriculture and Natural Resources, University of Tehran., in the fall and winter of 2013-2014. The survey includes 2600 students of College of Agriculture and Natural Resources, Tehran University. Convenient sampling method was used for collecting data and the sample size, which was identified using Cochran formula, was estimated as 155 subjects. To measure the entrepreneurial intentions as dependent variable, as well as social integration, social participation, communication and social confidence of the students as independent variables, a questionnaire with Likert scale was

Table 1: Chronbachs' alpha coefficient for different part of questioner.

Variable	Number of Items	$\alpha$
Entrepreneurial intention	5	0.88
Social participation	5	0.80
Social coherence	5	0.84
Social confidence	8	0.72
Communication	5	0.82

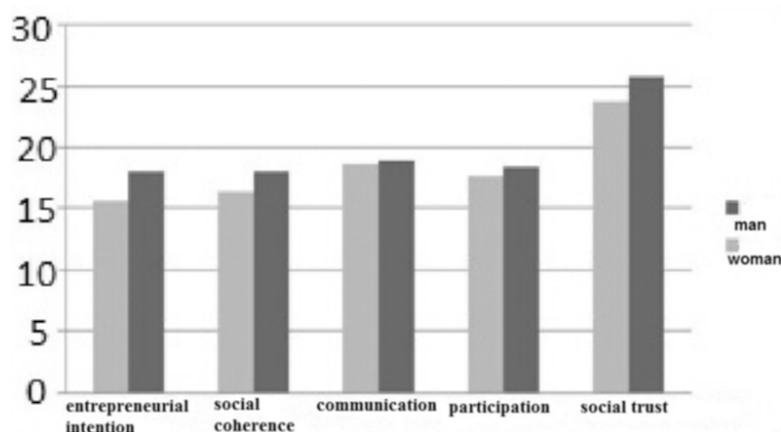


Figure 2: Comparison of studied variables in terms of gender

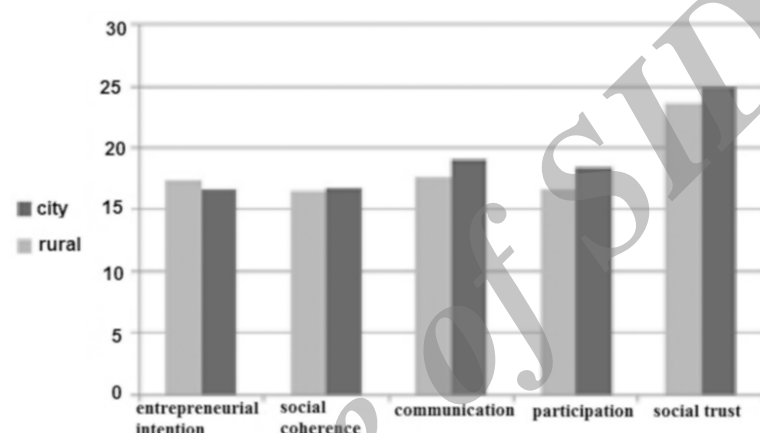


Figure 3: Comparison of main variables in terms of habitat.

applied. Formal methods were used to assess the questionnaire's validity, approved by the professors of Agriculture Development department of College of Agriculture and Natural Resources, Tehran University. To determine the reliability of the instruments used, a pretest was conducted among 30 students of the studied sample which based on Cronbach's coefficient alpha. The value of this coefficient, presented in table 1, showed that all parts of questionnaire have appropriate reliability to measure the studied variables. Other variables were presented by closed and open questions. SPSS software was used for data analysis. To describe the sample, frequency tables, central indices and descriptive figures were used. In the analytical study, the predominant statistical method is path analysis.

## RESULTS

The instrument used in the study, to measure the entrepreneurial intention, social integration, social participation, communication and social confidence variables of the students, was a questionnaire with Likert scale whose reliability was confirmed by Cronbach's coefficient alpha.

The average age of students participating in the study is 23, ranging from 18 to 35 years.

Studying the frequency of gender variable, it was determined that 47 percent of the respondents in the questionnaire were male students and 53 percent of them were female students. Figure 2 was used for the descriptive comparison of two groups of respondents and it has been plotted based on the average of studied variables according to the gender variable.

Table 2: Comparison of entrepreneurial intention in terms of gender.

Entrepreneurial intention	N	Mean Rank	Z	Statistics	Sig.
male	73	88.8	-2.832		0.005
female	82	68.38			



Table 3: The frequency of respondent in terms of major.

Case	Field	Percent
1	Irrigation	7.7
2	Pedology	11.6
3	Agronomy	11.6
4	Gardening	5.2
5	Agricultural Extension	3.9
6	Agricultural Development	3.2
7	Animal Sciences	6.5
8	Economy	2.6
9	Fisheries	2.6
10	Woods	12.3
11	Plant protection	5.2
12	Wood Industry	7.7
13	Environment	5.8
14	Watershed	3.9
15	Wood and Paper Industry	8.4
16	Agricultural Machinery	1.9

Figure 2 has showed that in most of the study variables except entrepreneurial intention one, both male and female students are equal. Mann White Cane test was used for compare of two groups in the study's dependent variable (The results of this test shown in table 3). There is significant difference between the two groups and male students are more interest to entrepreneurship.

Another variable that has been examined in this study is the students' residence variable. Overall, the residence as the culturing environment plays an effective role in one person's career and life. It's important to note that the respondent frequency in the two groups does not have a reasonable balance, so that only 30 of 155 respondents were from rural communities, so in this part we only relied on the descriptive statistics. According to figure 3, it was revealed that the participants who'd live in a rural environment had higher levels of entrepreneurial intentions. The important point is that with respect to the fact that rural communities have more traditional norms than rural communities, social integration and social confidence are expected

to be higher among the students inhabiting villages. This unexpectedly contradictory observation could be explained by the fact that university is generally located in an urban area and when both rural and urban students are registered in the university, as the students inhabiting cities have an urban background and their education place where is presumably in cities, they will be better integrated. This situation will take place, if the students living in village, due to the differences in personal life and education place, cannot integrate adequately with the environment. These conditions are the same as entrepreneurial intention.

Other variable is investigate the students' field of study in this study. The respondents to the questionnaire would consist of different departments of Agriculture and Natural Resources College, Tehran University (Table 3).

Based on the mean entrepreneurial intention variable, it was determined that among different groups, the Agricultural Machinery students had the highest level of entrepreneurial intention. Three undergraduate, graduate and PhD students were surveyed in the study. The combination of participants includes 51%, 41% and 8% for undergraduate, graduate and PhD students, respectively. The mean entrepreneurial intention among undergraduate, graduate and PhD students is 17.35, 16.03 and 16.83, respectively. These average values indicate that descriptively there is no significant difference between different degrees on entrepreneurial intentions. Of course, it should be noted that due to the imbalance in frequency of the three degrees, this comparison cannot be completely reliable. The variables which have been assessed in the present study by Likert scale would include the entrepreneurial intention, social integration, social participation, communication and social confidence of Agriculture and Natural Resources students. The scale of the variables is pseudo- parametric or pseudo-

Table 4: The frequency of students in terms entrepreneurial intention.

Entrepreneurial intention Group	Lower entrepreneurial intentions	Relatively lower entrepreneurial intentions	Relatively high entrepreneurial intentions	High entrepreneurial intentions
Frequency	25	46	53	31
Frequency Percent	16.1	29.7	34.2	20

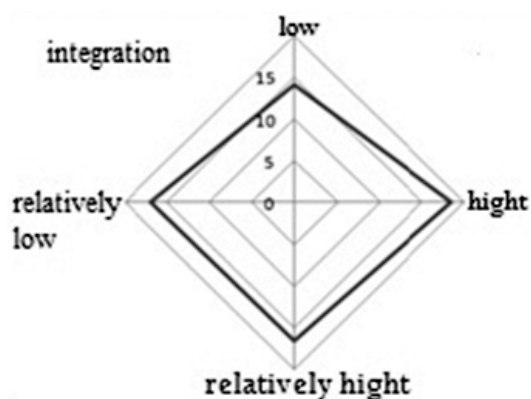


Fig 4: Social coherence in four level of entrepreneurial intention.

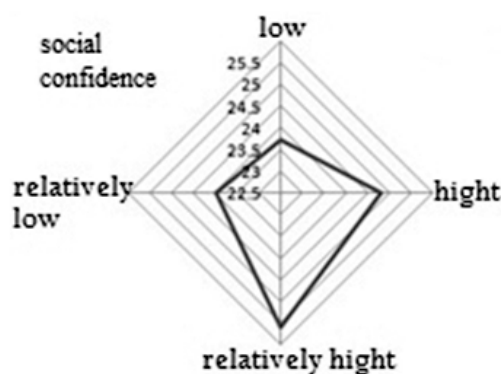


Fig 5: Social confidence in four level of entrepreneurial intention.

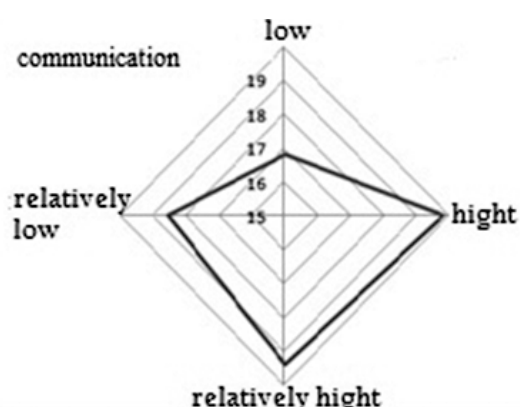


Fig 6: Social communication in four level of entrepreneurial intention.

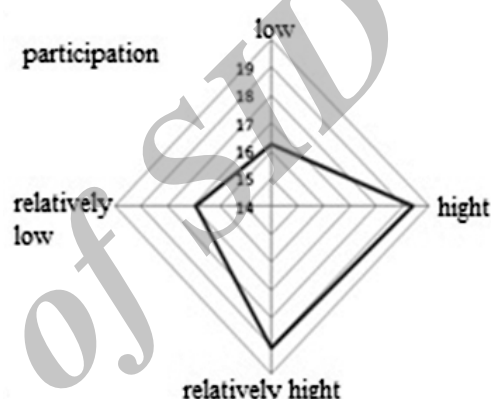


Fig 7: Social participation in four level of entrepreneurial intention.

distance. To describe the sample, firstly the students by means of mean and standard deviation are divided into four groups in terms of the dependent variable, i.e. entrepreneurial intention and then, they'll be compared with other variables. First group are the students who have low entrepreneurial intention. This group constitutes the students whose intention scores are less than one unit of SD. The second group are the students who have relatively low entrepreneurial intention. This group's entrepreneurial intention scores are between the mean and one standard deviation below. The third group of students whose entrepreneurial intention score is between the mean and one standard deviation higher than the average. The fourth group who enjoy a high level of entrepreneurial intention have a score which is one standard deviation relatively higher than the average.

Table 4 presents the frequency and frequency percentage in each group. According to this

table, the highest frequency belongs to the third group, i.e. the students with high entrepreneurial intention. In other words, based on grouping, entrepreneurial intention mode in the studied samples is related to the third group.

According to this grouping, a comparison was made among these four groups using the descriptive figures, on the basis of the variables of social integration, social participation, communication and social confidence. In figure 4, social integration variable has been studied among the four entrepreneurial intention groups; the students placed in the low entrepreneurial intention group have the lowest social integration. The same procedure is true for social participation and communication variables as well. As it can be observed in figure 5, however, the lowest social confidence is within the first group with low entrepreneurial intention and the highest social confidence is seen among the third group with relatively high entrepreneurial intention.

### Analysis of causal relations by path analysis technique

After describing the study sample, path analysis technique was used to test hypotheses and explore the causal relations among the variables. Path analysis is considered a suitable technique for the analysis of direct and indirect effects of independent variables on the dependent variable. In the present study, the entrepreneurial intention variable as the dependent variable and all other variables were considered as independent variables. Then, the path of the causal relations between these variables was drawn by the diagram in figure 8. The F test used for determining the model fit with degrees of freedom 3 is equal to 8.97, which is significant at the 99% level. Furthermore, Adjusted R square for the model is 0.134. That is, the independent variables in the study explain 13.4% of the variance of the students' entrepreneurial intention. The coefficients used in the path diagram are the regression beta coefficients. Being standard, these coefficients would be able to be compared within different variables. Therefore, it can be con-

cluded that among the variables of age, social participation and social integration, which influence directly on entrepreneurial intention, the participation variable has the greatest role in explaining the variance in entrepreneurial intention.

To interpret the beta coefficients in path analysis, the changes in the standard deviation (SD) of dependent variable and independent variables need to be taken into account. Thus, it can be said that for each unit of increase in the standard deviation of age, standard deviation of entrepreneurial intention will experience 0.164 unit of decrease. In other words, as the students get older, they will be less intended toward entrepreneurship. Also, for each unit of increase in the standard deviation of the participation variable, standard deviation of entrepreneurial intention will experience 0.212 unit of increase. With respect to the social integration variable, it should be noted that one unit of increase in social integration will lead to 0.99 unit of increase in the standard deviation of entrepreneurial intention. In other words, the students who enjoy high levels of social participation and integra-

Table 5: Direct, indirect and total effects of independent variables on entrepreneurial intention.

Independent variable	Direct effect	Indirect effect	Total Effects
Age	-0.164	-	-0.164
Social participation	0.212	-	0.212
social coherence	0.199	-	0.199
communication	-	0.257	0.257
social confidence	-	0.145	0.145

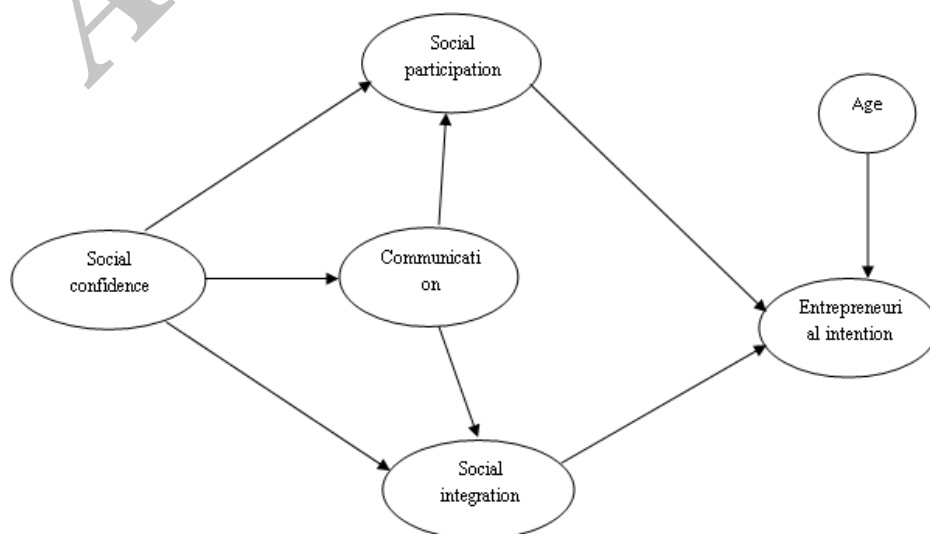


Figure 8: Path analysis of entrepreneurial intention.



tion are more likely to become entrepreneurs.

With respect to the other variables, it should be stated that communication variable has the greatest impact on the social participation and integration variables. In other words, the students who have a higher level of communication capabilities have higher social participation and integration, thereby having a positive impact on entrepreneurial intention. Communication as an important variable is affected by the social confidence variable. This relationship is direct, positive and significant; that is, the students with higher social confidence have more favorable communication capabilities. In the following in table 5, the direct and indirect effects of independent variables on the dependent variable have been presented. According to table 5, the communication variable has the most contribution to explaining the variance in entrepreneurial intention variable. Social confidence has the lowest contribution to the entrepreneurial intention, figure 1, however, indicates that the influence of this variable occurs in different ways.

### DISCUSSION

In the present study, the relationship between social capital and entrepreneurial intention was studied. Social capital can be investigated as a structure with the variables of social integration, participation, communication and of social confidence. Thus, by measuring the variables and their direct and indirect effects on entrepreneurial intention, the relationship between social capital and entrepreneurial intention can be analyzed.

In this study, firstly we identified and introduced the study sample using descriptive statistics and then on the basis of entrepreneurial intention, the students were divided into four groups and the social capital variables were analyzed within the four groups. Results showed that students with higher levels of entrepreneurial intentions benefit obviously more from the social capital variables. In other words, the more acceptable social capital, the more favorable the students' entrepreneurial intention is. This finding is consistent with the results from Shakiba's (2013) study. Finally, the causal relations were examined using the path analysis technique and results showed that age, participation and social

integration variables directly affect entrepreneurial intention and communication and social confidence variables indirectly affect entrepreneurial intention, where communication variable has the greatest role in explaining the variance in entrepreneurial intention. Thus, the following recommendations are offered for the development of social capital variables, so that with doing this among the students, the conditions for development and pushing students to entrepreneurship are provided.

1- It is of great importance to pay attention to the students' communication capabilities, because this variable plays the most significant role in explaining the entrepreneurial intention. There are different ways to improve the communication capabilities, but training workshops as a short-term action and introducing the subjects associated with communication and social capital in the courses taken by students can be represented as a long-term strategy.

2- Students with lower ages are more favorably tended toward entrepreneurship. Thus, for entrepreneurship development, more attention should be paid to this group and using the field researches, the reasons for lack of interest in entrepreneurship among older people should be identified and attempts need to be made to resolve them.

3- Participation has an effective contribution to improving social capital and subsequently, development of entrepreneurship.

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