

Study on Relationship between Social Capital and Entrepreneurship

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ABSTRACT

Social capital can be regarded as a set of common intergroup values or informal norms among some persons who cooperate with each other. This concept refers to bonds and relations between members of a network as valuable source which realizes goals of the members by creating norms and interactive trust. In absence of social capital, other capitals lose their effectiveness and entrepreneurship and passing ways of cultural and economic development and evolution will be problematic without social capital. Word "entrepreneurship" originates from obligation through which the entrepreneur creates new business, new organizations and innovation with his new and creative ideas and by indentifying new opportunities. Entrepreneurship is process of innovation and utilization of opportunities with effort and diligence with acceptance of financial, mental and social risks which is done by aiming at earning profit, achievement, personal satisfaction and independence. Main goal of this research is to study relationship between social capital and entrepreneurship of the personnel of Islamic Azad University, Tabriz Branch. Research methodology is survey-correlative and the sample size is 200 with regard to Kokran formula. Research results show that there is significant relationship between social capital and entrepreneurship rate of the women was higher than that of men.

KEY WORDS: entrepreneurship, social capital, social capital indices.

INTRODUCTION

Today, anther capital called social capital was utilized in addition to human, financial and economic capitals. This concept refers to bonds and relations between members of a network as valuable source which realizes goals of the members by creating norms and interactive trust. Social capital is a suitable bed for productivity of human and physical capital and a way for achieving success. Managers and those who can create social capital in the organization pave the way for job and organizational satisfaction. On the other hand, social capital gives meaning to life of the person and makes life simpler and enjoyable. Today, social capital plays more important role than physical and human capital plays in organizations and societies and collective and group relations networks integrate the human beings and organizations. In absence of social capital, other capitals lose their effectiveness and passing ways of cultural and economic development and evolution will be problematic without social capital. In traditional attitudes of management, development of economic and physical capitals and human capital, because other capitals will not be optimally used without this capital. In the society which lacks enough social capital, other capitals are lost. For this reason, subject of social capital is regarded as a critical fact for access to development and the successful managers will be able to produce and develop social capital in relation with society.

1. Social capital

Social capital is a concept which has long record. Application of this concept increased gradually since 1990s later on in theses and articles especially in sociology, economics, politics and education with works of some persons such as James Colman, Pear Bordio, Patnam and Francis Fokoyama. Use of social capital has been considered by social politics authorities and policymakers as applicable solution in local communities for problems of development. Social capital is defined in American sociology as bilateral relations, interactions and networks which emerge among the human groups and trust level which is found as among the group and special community as consequences of obligations and norms linked with the social structure. In contrary, European sociology applies this concept for studying how movement of the bonds relating to social networks reinforces social hierarchy and the distinguished power. However, common points of these two attitudes are profitability of social capital for increasing some specifications such as education, social movement, economic growth, political priority and finally development. Social capital is like other forms of productive capital and allows access to definite goals. Social

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capital is not fully changeable like physical and human capital. But it is changeable in comparison to special activities. A definite form of social capital which is useful for facilitating definite actions may be harmful for other actions. Social capital is not available in persons and physical tools of production. According to Fokoyama, social capital is a set of norms available in social systems which causes to promote cooperation level of that society and causes to lower exchanges and communication level. On the basis of this definition, some concepts such as civil society and social institution have close conceptual relation with social capital. World Bank regards social capital as the phenomenon which results from effect of social institutions, human relations and norms on quantity and quality of social interactions. Experiences of this organization showed that this phenomenon had considerable effect on economy and development of different countries. Social capital is not physically available in contrary to other capitals but it results from group and social interactions and norms and its increase can lower costs of the society management and operating costs of the organization. Fokoyama in Etemad book gives some examples about formation of social capital of the contemporary world economy. For example, it has converted family workshops to economic development motor in places such as capital of Italy, Hong Kong and Taiwan.

2. Entrepreneurship

Scientists defined creativity and innovation in different ways each indicating an aspect of creativity and innovation process. Creativity means application of mental abilities to create a new thought or concept. Creativity is process of evolution of creative and innovative attitudes about different positions. Creativity means emergence and production of a new idea and thought while innovation makes that thought practical. From creativity to innovation which is long way and it takes long time to convert a new thought to product or service and many efforts are made. When creativity is studied in terms of technological change and two close words are used: invention and innovation. Invention means creation of a new technology. This new technology includes creation of goods, service or process which is new for the organization. An innovation can be a change in industrial method which causes to promote the new organization. Schumpeter regards successful innovation as distinguished work which is not result of intelligence but result of will.

3. Social capital in economic system

Social capital has four major consequences:

- 1- Attaining information
- 2- Knowledge transfer, innovation and dispersion of technology and procedures
- 3- Application of complementary knowledge and trying to solve the problems
- 4- Intermediation

These consequences may vary over time with regard to needs and specifications of those persons who have access to social capital. Social capital is critical for start and support of economic action, therefore, its positive consequences can be found in some fields such as formation of industry, heuristic processes, intra-company cooperation and entrepreneurship. Social capital helps the entrepreneurs gather the sources from different fields and in new way and combine them. Social capital gives the entrepreneurs help and consultation and helps them decrease uncertainty by recognizing their functional environments. Social capital realizes intra-company cooperation and relations especially in the fields which interactive rust replaces and complements contracts. Researches in industrial fields can be important for for access to growth and innovation with regard to presence or absence of social capital in heuristic processes. Because social capital provides opportunities for meeting the unfulfilled needs and combines resources in new ways, it is important in heuristic processes. Studies show that social capital reinforces spiritual return in knowledge-based systems. Social capital also gives technical consultation during propagation of innovations and transfer of knowledge. However, social capital has negative aspect. On the other hand, it may be regarded as an obligation which prohibits or limits social and economic processes. New studies warn and mention its negative point. The first and the clearest negative point is that it deals with negative communication which means the relations in which at least one person receives effective negative judgment about another person. Such negative relations may prevent the persons from utilizing the available opportunities or inhibit their job path. The second subject who has lower clarity deals with cost of opportunities. Similar social structure which is useful for some persons may be limiting for others. Social capital requires investment and continuation over time. Due to old requirements of reliable relations, it is more difficult to turn to other relations for utilization of the opportunities which re created by different subsystems. This holds true for the players who work in complex organizations and in multiple projects. High level of social capital between professional groups may prevent them from access to suitable level of coordination.

4. Effect of social capital on productivity

As mentioned in definition of social capital, social capital can have economic, social and political advantages and this is due to relationship between trust and mutual cooperation and efficiency. It seems that there is high agreement on mechanisms through which social capital can have positive effect on economic performance. The most important mechanisms include:

A- lower costs of exchanges

B- Lower rate of public transportation

c- Risk

d- Improvement of products quality.

5. Validity of measurement tools

Questions relating to social capital and entrepreneurship constructs have been used from the questionnaire containing 40 items. Validity of the questions relating to social capital and entrepreneurship was determined in two ways. Firstly, the references were selected by determining content validity or gathering views of the sociologists in this field. Factor analysis was used in order to determine validity of the said constricts questions.

5.1. Factor analysis for classification and grouping of questions relating to social capital

In order to classify 20 questions relating to components of social capital, factor analysis technique was used on the basis of analysis into main components. According to table 1, it is observed that $KMO^2=0.82$ was obtained and because this value is larger than 0.5, it is concluded that the number of samples is very suitable for factor analysis since KMO value is between 0 and 1 and the closer to one, the higher the sample validity. According to the above table, Bartlett's test of sphericity was obtained to be 1035.93 with significance level of p=0.000 and because this value is significant, it is concluded that the factors have not been classified well and the questions included in each factor have congeneric correlative factor with each other.

Table 1- Kasiser-Meyer test and Bartlett's test of sphericity for questions relating to social capital

Kasiser-Meyer –Olkin	0.820	
Bartlett's test	Approx. chi-square	1035.931
of sphericity	Df	190
	Sig	0.000

5.2. Factor analysis for classification and grouping of questions relating to social capital

According to table 2 and on the basis of rotated factor loads in varimax method, there are the first factor with 5 questions relating to trust, the second factor with 4 questions relating to communication, the third factor relating to variety of capital, the fourth factor with 4 questions relating to interaction, the fifth factor with 3 questions relating to structural dimension of capital and the sixth factor with one question relating to capacity which are mentioned in the said table with their fact road coefficients.



Figure 1-aggregate figure relating to classification of question in six factors

Ouestions	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
20	0.759					
16	0.735					
17	0.648					
18	0.555					
7	0.398					
12		0.799				
19		0.715				
15		0.473				
14		0.443				
10			0.798			
11			0.638			
13			0.509			
6			0.463			
3				0.760		
2				0.713		
1				0.708		
5					0.684	
4					0.577	
8					0.475	
9						0.719

Table 2-classification of factors on the basis of factor load coefficients with varimax rotation

In order to classify 20 questions relating to components of entrepreneurship, factor analysis technique was used on the basis of analysis into main components. According to table 3, it is observed that $\text{KMO}^1=0.76$ was obtained. According to the above table, Bartlett's test of sphericity equals to 979.61 with significance level of p=0.000 and because this value is significant, it is concluded that the factors have been classified properly the questions included in each factor have congeneric correlative factor with each other.

Table 3- Kasiser-Meyer test and Bartlett's test of sphericity for questions relating to entrepreneurship

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Kasiser-Meyer –Olkin mea	0.760	
Bartlett's test	Approx. chi-square	979.611
of sphericity	Df	190
	Sig	0.000

5.3. Factor analysis for classification and grouping of questions relating to social capital

According to table 4 and on the basis of rotated factor loads in varimax method, there are the first factor with 3 questions relating to pioneering, the second factor with 4 questions relating to innovation in presentation, the third factor with 4 questions relating to innovation in process, the fourth factor with 3 questions relating to entrepreneurship risk, the fifth factor with 3 questions relating to new business and the sixth factor with 3 questions relating to self renewal which have been mentioned in the above table with their factor load coefficients.

Table 4-classification of factors on the basis of factor load coefficients with varimax rotation

Questions	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
11	0.823					
12	0.788					
10	0.726					
19		0.797				
18		0.690				
17		0.619				
6		0.536				
14			0.835			
15			0.790			
3			0.422			
13			0.421			
7				0.683		
9				0.679		
8				0.591		
1					0.853	
2					0.448	
5					0.396	
4						0.755
20						0.463
16						0.459



Figure 2- aggregate figure relating to classification of question in six factors

6. Reliability of measurement tools

Reliability of the questionnaire was determined on the basis of Chronbach alpha test. Alpha value is in range 0 to 1 so that internal reliability of items is found through this coefficient. If this coefficient is zero, it will indicate full unreliability of items and if it is one, it will indicate full reliability. If alpha value is more than 0.7, questions and items are suitable for testing the concept or the related variable. According to table 5, it is found that questions and items of the questionnaire is higher than 0.7. For this reason, it is scientifically valid to describe and test relations of variables.

Table 5-reliability of social capital and entrepreneurship items

Construct	Number of question	Average variance	Average covariance	Average correlation	Alpha value
Social capital	20	0.1588	1.1581	0.1588	0.7606
Entrepreneurship	20	0.2117	1.2037	0.2117	0.8102

6.1. Measurement of social capital and entrepreneurship

In order to measure social capital, 20 items which had been designed in likert spectrum scale, total items show social capital score of the person. In order to measure entrepreneurship, 20 items which had been designed in likert spectrum scale, total items show entrepreneurship score of the person.

6.2. Descriptive finding

On the basis of table 6, 62% of the respondents were men and 38% were women and the profile relates to the respondents who are men. Regarding education variable, 25.5% of the personnel in Islamic Azad University, Tabriz Branch hold high school degree, 29% hold associate's degree, 41% hold bachelor's degree and 45% hold master's degree. Regarding term of service, 65% of the studied personnel had 1 to 5 years of service, 24.5 had 6 to 10 years of service, 5.6% had 11 to 15 years and 4% had above 15 years of service and most of the studied personnel had 6 to 10 years of service.

	Table 6- frequence	cy distribution of fie	la variables	
Stu	idied groups	Frequency	Valid percentage	Aggregation percentage
	Man	124	62	
Gender	Woman	76	38	62
	Total	200	100	100
Education	High school	51	25.5	
	Associate's degree	58	29	25.5
	Bachelor's degree	82	41	54.5
	Master's degree	9	4.5	95.5
	Total	200	100	100
Term of	1-5 years	130	65	
service	6-10 years	49	24.5	65
	11-15 years	13	6.5	79.5
	Above 15 years	8	4	96
	Total	200	100	100

Table 6- frequency distribution of field variables

6.3. Frequency distribution of social capital and its dimensions among the studied respondents

On the basis of table 7, it is found that average social capital among the respondents equals to 44.62 ± 17.25 and the maximum social capital is 60 and minimum social capital is 20 and skewness coefficient is sk=1.3 which indicates positive distribution of data. We can say that social capital of the respondents is average below.

Variable	Average	Standard deviation	Variance	Skewness coefficient	Minimum	Maximum
Social capital	44.624	17.253	297.67	1.309	20	90
Structural	84.625	15.519	240.85	-1.83	0	100
Communicative	42.125	20.071	402.84	0.34	0	100
Variety	34.625	14.272	203.69	2.004	6.25	100
Interaction	28.656	22.827	521.073	0.814	0	100
Trust	33.42	13.68	187.32	1.048	12	80
Capacity	2.72	1.169	1.368	0.352	1	5

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6.4. Frequency distribution of entrepreneurship and its dimensions among the studied respondents

On the basis of table 8, it is found that average entrepreneurship rate among the respondents equals to 61.88 ± 12.77 and the minimum entrepreneurship rate is 15.28 and maximum entrepreneurship rate is 89.58 and skewness coefficient is sk=0.85 which indicates negative distribution of data. We can say that entrepreneurship rate of the respondents is high.

i ubie o i reducine i distribution of social capital and its annonship annone are stadied respondents	Table 8- Frequency	distribution of soci	al capital and its dimensions	among the studied respondents
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Variable	Average	Standard deviation	Variance	Skewness coefficient	Minimum	Maximum
entrepreneurship	61.88	12.774	163.188	-0.853	15.28	89.58
New business	62	19.657	386.404	-0.475	8.33	100
Innovation in presentation of services	51.33	20.926	437.911	-0.077	0	100
Innovation in process	68.625	22.369	500.403	-0.591	0	100
Self renewal	50.593	20.501	420.303	-0.269	0	100
Risk	74.708	20.091	403.669	-1.121	0	100
Pioneering	64.062	17.110	292.772	-0.556	0	100

6.5. Inference

Kolmogrov – Smirnov Test for recognizing normal distribution of the studied constructs In order to select suitable statistical tests for analysis of the gathered data, it is necessary to assess distribution of the constructs in terms of their normal distribution. In this case, Kolmogrov – Smirnov Test was used and it is observed according to table 9 that significance level of the above test about the studied construct is larger than 0.05. Therefore, we can judge that frequency distribution of the construct is normal and the used parametric tests are useful.

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Constructs	Number	Average	Standard deviation	Lack of difference	Positive difference	Negative difference	Test	Significance level
entrepreneurship	200	61.88	12.77	0.071	0.053	-0.071	1.001	0.269
Social capital	200	44.62	17.25	0.22	0.22	-0.111	1.15	0.251

Table 9- Kolmogrov - Smirnov Test for recognizing normal distribution of the studied constructs

6.6. Relationship between social capital and entrepreneurship of the personnel

In order to measure relationship between variables of social capital and entrepreneurship, Pearson correlative coefficient test was used. According to table 10 and Pearson correlative coefficient, it is observed that there is correlation of r=0.399 between social capital and entrepreneurship with significance level of p=0.000. Therefore, there is direct correlation between social capital and entrepreneurship of the personnel. According to linear regression equation, explanation coefficient is R^2 =0.16. It means that 16% of the personnel entrepreneurship variance is determined on the basis of social capital and effect of social capital on entrepreneurship is 0.16 according to regression equation.

Table 10-correlation between social capital and entrepreneurship

Variables	correlation	Significance level	Number
social capital and	0.399	0.000	200
entrepreneurship			

6.7. Comparison of social capital among the personnel on the basis of gender

Social capital varies on the basis of gender of the personnel. According to table 11, it is found that average entrepreneurship rate is 60.11 ± 14.22 among the male personnel and 64.78 ± 9.35 among the female personnel. According to Leven's test, F=7.96 has been obtained with significance level of P=0.005 in variances equality test. Therefore, t is used with unequal variance and t value equals to t=2.8 with significance level of P=0.006. Therefore, we can say that entrepreneurship rate varies on the basis of gender of the personnel and entrepreneurship rate of the women is higher than that of the men.

Table 11-comparison between entrepreneurship rate among female and male personnel										
Comparison of entrepreneursh	ip Number	Average		tandard deviation	Standard error					
among female and male										
personnel										
Male personnel	124	60.111		14.223						
Female personnel	76	64.784		9.353	1.072					
	Leven's test for e	quality of variances	t-test for comparison of averages							
	F	significance level	t	Degree of freedom	Significance level					
Assuming equality of variance	7.939	0.005	2.546	198	0.012					
Assuming inequality of variance	f		2.801	196.98	0.006					

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6.8. Comparison of social capital among the personnel on the basis of gender

Social capital varies on the basis of gender of the personnel. According to table 12, it is found that average social capital is 45.05±15.83 among the male personnel and 43.91±19.43 among the female personnel. According to Leven's test, F=0.87 was not obtained with significance level of P=0.005. Therefore, t is used with equal variance and t value equals to t=0.45 with significance level of P=0.651. Therefore, we can say that entrepreneurship rate varies on the basis of gender of the personnel.

Table 12-comparison between endepreneursing rate among remate and mate personner									
Comparison of entrepreneurship among female and male personnel	Number	Average	Standard deviation	n Stand	Standard error				
Male personnel	124	45.058	15.839	9 1.422					
Female personnel	76	43.916	19.430	9.430 2.228					
	Leve	en's test for equality of variances	t-t	t-test for comparison of averages					
	F	significance level	t	Degree of freedom	Significance level				
Assuming equality of variance	0.87	0.051	0.454	198	0.651				
Assuming inequality of variance			0.432	134.88	0.666				

Table 12-comparison between entrepreneurship rate among female and male personnel

7. DISCUSSION AND CONCLUSION

There is significant relationship between social capital and entrepreneurship. We can conclude that this result theoretically can't be proved and social capital refers to bonds and relations between members of a network as valuable source which realizes goals of the members by creating norms and interactive trust. Mentioning direct relationship in the hypothesis means that numerical decrease or increase of social capital will decrease or increase entrepreneurship of the personnel. The organization which has good social capital can promote creativity and new ideas in the person due to its effect on exchanges and transfer of implied and express knowledge and these new ideas cause innovation and entrepreneurship in the organization. The organization which has high social capital can be an entrepreneur organization. In the organization which there is no social capital or not in desirable level, there will be no learning and trust and this low trust level causes the entrepreneur to be punished due to failure decreasing entrepreneurship and creativity of the personnel. In the second hypothesis, entrepreneurship rate was significant on the basis of the personnel's gender according to mean difference t-test and entrepreneurship rate as higher in women than in men. To explain this subject, we can say that major political, economic and social changes are effective on role of the women

with regard to present specifications of the Iranian society. The women could have appeared in economic and social field in recent decades due to their abilities and talents and the society could have utilized their abilities.

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