International Journal of Agricultural Management and Development
Available online on: www.ijamad.iaurasht.ac.ir
ISSN: 2159-5852 (Print)
ISSN:2159-5860 (Online)
Research Paper

Social Capital Components of Forest Dwellers of Forestry Cooperatives in Iran (Case of Siahkal County)

Mohammadali Zare [a] and Alireza Eslami [b]*

Received: 01 January 2017,
Accepted: 10 October 2018

Abstract

The aim of this study was to compare the social capital indicators of members and non-members of cooperatives in Siahkal County, Iran. The sample size was calculated by the Cochran formula to include300individuals (150 member cooperatives and 150 non-members of the cooperative) that were selected by the stratified random sampling method. The main tool employed in this study was a questionnaire that evaluated the reliability of internal consistency using Cronbach's alpha was calculated. In this research, correlation coefficients, t-test, Mann-Whitney test and multivariate regression were used for testing hypotheses. Results obtained from inferential findings indicated that there was a significant positive relationship at 1% level between the variables of social cooperation and social interaction, social cooperation and social conflict, social cooperation and informal relations network, social cooperation and trust in others, social cooperation and trust in institutions, social cooperation and social partnership, and finally social conflict and informal relations network. Based on the t-test results, most individual indices of members and non-members of forestry cooperatives showed a significant difference with each other at 1% level. Results showed that there was a significant difference between members and non-members of the cooperative in terms of social capital components of forest dwellers except for the component of trust in institutions, which lacked a significant difference. This analysis shows that about 68% of the variation of the dependent variable is determined by independent variables which were significant here.

Keywords:
forest dwellers, forestry cooperative, Siahkal County, Social capital components

[a] Graduate Student, Agricultural Management, Rasht Branch, Islamic Azad University, Rasht, Iran
[b] Associate Professor, Department of Horticulture, Rasht Branch, Islamic Azad University, Rasht, Iran
** Corresponding author's email: eslami@iaurasht.ac.ir*

INTRODUCTION

Co-operation and collaboration in the rural community of Iran is an ancient tradition with deep roots and a long history. The most common forms of traditional co-operatives can be found in the vegetation stocking in the villages, the legal system, the rocks layer, and the collective practices of herding. However, the first pillar of the comprehensive expansion of the cooperative system in Iran is practically based on the implementation of the reform of the Land Reform Act in the year 1951 (Ahmadian & Moeini, 2016).

Rural cooperatives are one of the oldest new rural institutions in Iran that can play a significant role in promoting people's livelihoods by improving their economic conditions and encouraging social partnerships. The fact is that despite the small and qualitative expansion of rural cooperative companies, these companies have not been able to play an effective role in the country's rural development scene. Therefore, it is necessary to consider the study of rural cooperatives as a tool for achieving sustainable rural development and strengthening people's institutions in the field of rural development and development (Rimon, 2009).

Social capital is one of the components that influences the performance and success of cooperative companies, including rural cooperatives, which has attracted the attention of many scholars and social scientists, social capital, rural development and development in recent decades. Putnam's interpretation of social capital is considered as a suitable platform for human and physical capital productivity and as a way to succeed. The amount of social capital of cooperative members has a positive and influential role in making decisions and improving them and applying the management in a desirable manner and increasing production partnerships (Heidari, 2016). Social capital consists of elements such as trust, awareness, cooperation, and network. It is a kind of social product and is a result of social interaction. Unlike physical capital, which decreases due to overuse, social capital grows and strengthens when overused (Zare et al., 2012). Based on this, the initial belief in this research is that the formation of rural cooperatives cannot be limited to economic, environmental and infrastructure, physical, informational, educational and promotional factors, but also an additional factor, namely social capital, plays a role (Ahmadi & Feizabadi, 2011).

The present study, then, investigated and compared the components of social capital of foresters and non-members of jungle cooperatives in Siahkal County. However, recognizing the capabilities and obstacles to the prosperity of cooperatives was deemed to be necessary to meet the expectations of cooperatives based on conditions and realities.

The authors usually when economic problems of a country are discussed, the lack of physical (material) capital is considered as one of the biggest problems, and social capitals are not mentioned. While, the need for social capital at the time of recession or inflation which requires validation is felt more than any other capital (Agahi & Karami, 2012). Formation of natural resources cooperatives with the aim of expanding people's cooperation in the maintenance and revival of natural resources was incorporated into the agenda of the State Forest and Rangeland Organization in 1980s so that at the end of 2001, more than 800 cooperatives were formed in different areas of forest, rangeland, exploitation of byproducts, and so on. Currently, in Guilan Province General Department, there are eight cooperatives. In the area of forest, these cooperatives include forest resources management cooperatives, byproducts exploitation cooperatives and forest revival, exploitation and development cooperatives. Forest revival, exploitation and development cooperatives were formed with the aim of gradual reduction of the government's investment, employment and gaining income by selling products, preventing immigration of villagers to cities, creation of an appropriate platform for participation of forest dwellers in forest management, preventing the violence and destruction of

natural resources fields and preventing the uncontrolled grazing of livestock and optimum change of forest dwellers' lifestyle through assigning manufacturing affairs (Heydarpour et al., 2009). Thus, the role of social capital in organizations and societies is more important than physical and human ones and networks of collective and group relations are an integrative element among humans and organizations. In the absence of social capital, other capitals will lose their efficiency, and without the social capital, it is difficult to pass the routes of cultural and economic development and evolution. Social capitals are productive like other forms of capitals and make it possible to attain certain objectives which are not obtained in their absence. In major development plans, the cooperative system is an effective tool and paves the way for participation. For this reason, forestry cooperatives can be important in the maintenance and revival of forest fields and village development (Torfi et al., 2011).

In Indonesia showed that participation in different organizations and associations can have a positive effect on the welfare and livelihood of families such that participation in associations and organizations with references of membership density, internal heterogeneity of association in terms of age, gender, education, presence at meetings, active presence at the time of decision making, and payment of debts and charges showed a significant effect (Grootaert, 1990). In another study, researchers investigated the effect of networks' participation and social relations and interactions on the performance of entrepreneur quick-impact small companies (SMES) based on the internal growth theory. They showed that social interactions led to the increased capacity of technical and commercial information collection (social awareness) among companies as well as the improvement of social participation among companies through creating an appropriate atmosphere and social trust. With the appropriate interaction of information among companies, the financial performance of companies will improve. In this research, the effect of personal characteristics including age, income, education level and history of membership on the performance of entrepreneur quick-impact small companies was significant (Barr, 2000).

In yet another study, for determining a model of social capital components, an applied research has been conducted. Based on the research results, the social awareness is a key element in the social, capital and other factors are validated for determining the amount of social capital. The personal characteristics affecting the social capital and individuals' performance include age, gender, income, the impact of peer groups and social and personal ownership (Atuahene-Gima & Murray, 2007). Another study investigated the general and basic factors affecting the performance and success of agricultural companies, including governmental, commercial, technical, perceptual and social factors. From among social factors, the main variables of social expectations and norms, social interactions, and social values affected the success and performance of agricultural companies. In this research, the effect of personal characteristics, including age, gender, income, education level, and history of membership on the performance of agricultural companies was significant (Scrimajour et al., 2006).

Other researchers determined the social capital components affecting the performance of US companies. The results showed that the cognitive capital (social awareness), social participation, social solidity and increase of social interactions influenced the improvement of performance, income, activity quality, provision of product and working complexity of companies. Furthermore, these researchers suggested that effective social relations and interactions must be adjusted so they can be compatible with the expected performance of companies. In addition, in this research, the effect of personal characteristics inducing age, membership history, education level and gender on the performance of US companies has been evaluated (Krause et al., 2007). In

China there was not a significant relationship between diversity of individuals' membership in different organizations and performance of private companies. Moreover, short-term investment on strengthening social capital of private companies' members will significantly affect the performance of these companies. Social capital components in this research included social participation, social trust, social solidarity and social awareness. The effect of personal characteristics, including age, gender, and education level and membership history on the performance of Chinese private companies is significant (Zhang, 2007).

The role of social capital in the production management (manufacturing cooperatives, NGOs and fishermen and coastal villagers groups) in coastal areas of Fiji was investigated. Variables of individuals' social capital, including social norms and solidarity, social trust, social unity, social awareness and social participation influenced the performance of economic groups' management. From among the variables just outlined, the lack of social participation among individuals and or members of economic groups produced the maximum effect on the economic management of coastal regions. The study results showed that the improvement of social capital's dimensions is significant in the improvement of local people's income and application of appropriate technology in the region (Zuka, 2013).

In an article titled "Comparison of social capital components in member or non-member farmers of rural production cooperatives", it was shown that four components of social capital, including information exchange with outside the social system, trust in institutions and formal relations network and amount of awareness led to the intensification and facilitation of cooperation between members of the production cooperative in order to implement development plans (Ahmadi Firoozjaei et al., 2006).

Another article titled "The study of social capital in different systems of land use and factors affecting the conversion of rural beneficiaries to cooperatives ones" was reviewed. In this study, the social capital was investigated among different exploitation systems with the aim of comparatively comparing two individual and collective methods in exploitation systems, that is, rural and cooperative exploitation systems with other exploitation systems, and the participation of cooperation and modernism norms in two types of rural and cooperative systems were studied. The study results showed that the participation of cooperation norm, willingness to teamwork, modernism, and exploitation among cooperative beneficiaries were significantly higher than those of the beneficiaries of rural and micro-units (Loghman et al., 2017).

The role of social capital in the rate of participating at rangeland projects was investigated based on viewpoints of executives of such projects was studied. Findings showed that there was a significant relationship between the social capital and its components including trust in individual relations, institutional trust, social safety and mutual cooperation as well as the participation rate of executives in implementing rangeland projects. In addition, the variance analysis results indicated that there was a significant difference between the type of management in the exploitation of rangelands of the region and social index of beneficiaries in terms of method of exploitation (Heydarpour et al., 2009).Results obtained from the research (Torabi et al., 2010)showed that social participation, social trust, social solidarity, social awareness and education level and age influenced the performance of cooperatives, could explain 69.1% of effective factors in the variable of cooperatives' performance. Out of these, social participation and social trust variables had the maximum effect on the performance of cooperatives.

The next study has been conducted with the aim of studying the participation rate of villagers who were members of forestry cooperatives and its relation with the role of cooperatives in the rural development of forest areas of Golestan Province. Findings showed that the participation of members in

cooperatives' affairs was low to medium. In addition, the effect of forestry cooperatives on the rural development was low. Yet, there was a significant positive and strong relationship between participation of members in cooperative's affairs and effect of cooperative on village's development. The path analysis results indicated that from among dimensions of members' participation in forestry cooperatives, participation in the resource division had the maximum effect on the rural development; however, from among the total direct and indirect effect, the variable of participation in implementation had the maximum effect on the rural development. The participation and cooperation of cooperative members in all the affairs relating to forestry cooperatives and these cooperatives' attempt to improve their income and production were among the research suggestions (Tavakoli et al., 2011).

METHODOLOGY

The statistical population of this study comprised all the forest dwellers of Siahkal County, which were member or non-member forest dwellers of forestry cooperatives. The research statistical population includes all in Siahkal County members and non-members of cooperatives forest dwellers. The sample size was calculated by the Cochran formula 300 (150-member cooperatives and 150 non-members of the cooperative) that were selected by the stratified random sampling method. Considering the research propositions, the documentary research and library study as well as field survey using questionnaires were used. The main tool for this study was a questionnaire that evaluated the reliability of internal consistency using Cronbach's alpha was calculated. The components of social capital consisted of the dependent variables of the present study, which included: social co-operation, social interaction, social conflict, network of informal relationships, information exchange with members of the social system, intra-group social capital, trust in others, trust in institutions, participation Social network, formal communication networks, information exchange outside the social system and awareness, and the independent variable of this study included membership/non-membership in the forestry cooperative. In the data analysis, the descriptive and inferential analysis was conducted using the mean scores, t-test, Mann-Whitney test, correlation coefficient and multivariate regression analysis.

RESULTS AND DISCUSSION

In order to study the social capital components of member or non-member forest dwellers of forestry cooperatives, seven indices were used based on a Likert scale. The indices under study were social cooperation, social interaction, social conflict, network of informal relation, trust in others, trust in institutions and social participation indices, respectively. Results obtained from the prioritization are provided in Tables1 and 2.

The minimum coefficient of dispersion shows the highest priority, and when the coefficient of dispersion is similar, the same priority is considered.

Results obtained from the study of social capital components of member forest dwellers of forestry cooperatives showed the component of "consultation with friends and relatives among forest dweller" with the coefficient of variation equal to 0.216 is the first priority and next priorities include "trust in others' speech and accepting to guarantee them", "the correlation among forest dwellers in performing time-consuming tasks for others" and "trust in forestry agents" with the coefficients of variation equal to 0.247, 0.251 and 0.469, respectively (Table1).

Results obtained from studying social capital components of non-member forest dwellers of forestry cooperatives showed that, from among non-members, the component of "correlation among forest dwellers in performing time-consuming tasks for others" with the coefficient of variation equal to 0.256 is the first priority and next priorities include "correlation among forest dwellers in ignoring their benefits for the sake of others", "trust in

Table 1
Prioritization of Social Capital Components the Forest Dwellers Member Cooperatives the Forest dwellers

indicator	Statements	SD	Mean	Priorities
Social cooperation	What is the contribution of livestock in the Forest dwellers in there?	1.11	2.79	11
	How much cooperation in livestock each other when there is a disaster?	0.99	2.94	8
	What about the correlation between the Forest dwellers cancel their own interests for the interests of others out there?	0.93	2.78	7
Social interaction	What is the association between the Forest dwellers on time-consuming tasks for others there?	0.73	2.94	3
	What is the correlation between Forest dwellers about doing something for others that there is no benefit to no one?	0.86	2.75	6
Social conflict	What the fights, quarrels and such factors between the Forest dwellers there?	0.88	2.10	12
	The dispute over minor issues between Forest dwellers how?	0.77	2.21	9
Informal relations	The discussions with family members and relatives in the Forest dwellers how?	1.19	3.35	10
	In consultation with friends and acquaintances among Forest dwellers how?	0.75	3.46	1
Reliance on others	How You trust the others on issues such as lending money and lend?	1.06	3.33	14
	Countless words of others you trust to others the confidence to accept bail them?	0.73	2.95	2
Trust inputs	Forestry officials How is your confidence?	0.78	1.66	15
	How is your confidence to vendor's livestock inputs?	1.05	2.49	13
Community involvement	Your participation on Forest dwellers consultation with other residents, such as providing comments and suggestions at meetings like?	0.72	2.71	4
	How Your participation on action to try to solve the problems facing Forest dwellers?	0.87	3.04	5

others for lending money" and "trust in livestock institutions' dealers" with the coefficients of variation equal to 0.257, 0.264 and 0.667, respectively (Table2).

The relationship among social cooperation, social interaction, social conflict, network of informal relations, trust in others, trust in institutions and social participation indices was investigated. The results obtained from the analysis of correlation between variables under study (Table 3) showed that there were significant positive relationship between social cooperation and social interaction indices at 1% level (r= 0.171), social cooperation and social conflict indices (r= 0.441), social cooperation and network of informal relations indices (r= 0.407), social cooperation and trust in others indices (r= 0.491), social cooperation and trust in institutions indices (r= 0.427), social cooperation and social participation indices (r= 0.255), social interaction and trust in others indices (r= 0.149), social interaction and trust in institutions indices (r= 0.151), social conflict and network of in-

formal relations indices (r= 0.445) and social conflict and trust in others indices (r=0.042).

Furthermore, there is a significant positive relationship at 1% level between social conflict and social participation indices (r= 0.151), network of informal relations and trust in others indices (r= 0.439), network of informal relations and trust in institutions indices (r=0.319) and trust in others and social participation (r= 0.315). In addition, there is significant positive relationship at 5% level between social interaction and social conflict indices (r=0.118), social interaction and network of informal relations indices (r=0.138) and social interaction and social participation indices (r= 0.123).

Table 2
Prioritization of Social Capital Components The Forest Dwellers Non-Member Cooperatives The Forest dwellers

indicator	Statements	SD	Mean	Priorities
Social cooperation	What is the contribution of livestock in the Forest dwellers in there?	1.29	3.42	10
	How much cooperation in livestock each other when there is a disaster?	0.877	3.04	4
	What about the correlation between the Forest dwellers cancel their own interests for the interests of others out there?	0.859	3.34	2
Social interaction	What is the association between the Forest dwellers on time-consuming tasks for others there?	0.859	3.34	1
	What is the correlation between Forest dwellers about doing something for others that there is no benefit to no one?	0.907	2.90	7
Social conflict	What the fights, quarrels and such factors between the Forest dwellers there?	1.17	2.62	12
	The dispute over minor issues between Forest dwellers how?	0.801	1.66	13
Informal relations	The discussions with family members and relatives in the Forest dwellers how?	0.888	2.10	11
	In consultation with friends and acquaintances among Forest dwellers how?	1.09	3.72	6
Reliance on others	How You trust the others on issues such as lending money and lend?	0.805	30.04	3
	Countless words of others you trust to others the confidence to accept bail them?	0.913	2.64	8
Trust inputs	Forestry officials How is your confidence?	1.09	3.01	9
	How is your confidence to vendor's livestock inputs?	1.30	1.92	15
Community involvement	Your participation on Forest dwellers consultation with other residents, such as providing comments and suggestions at meetings like?	1.21	2.37	14
	How Your participation on action to try to solve the problems facing Forest dwellers?	0.881	3.04	5

Table 3
Correlation Analysis between Variables Using Pearson

	social participation	Trust input	Reliance on others	Network of informal relations	Social conflict	Social interaction	Social cooperation
social par	1						
Trust input	0.171 0.003	1					
Reliance on others	0.441 0.000	0.118 0.042	1				
Network of informal relations	0.407 0.000	0.138 0.017	0.455 0.000	1			
Social conflict	0.491 0.000	0.149 0.10	0.277 0.000	0.439 0.000	1		
Social interaction	0.427 0.000	0.151 0.009	0.042 0.002	0.506 0.000	0.142 0.014	1	
Social cooperation	0.255 0.000	0.123 0.034	0.151 0.009	0.319 0.000	0.315 0.000	0.437 0.000	1

Based on the t-test results (Table 4), most personal indices of members and non-members of forestry cooperatives have a significant difference with each other at 1% level. Study of the average score for age of these two groups indicates that the age of members is more than non-members. However, this test shows that the age of members and non-members does not have a significant difference at 1 percent level of significance. Study of the average score for job experience of these two groups indicates that it is higher for members than non-members. This test shows that there is a significant difference at 1% level between the job experience of members and non-members. Moreover, there is a significant difference at 1% level between the total lands of members and non-members. Study of the average score of distance from cooperative in these two groups' shows that non-members have more distance from cooperative than members and there is a significant difference at 1% level between these two. Based on the results of the above test, there is a significant difference at 1% level between the monthly income of members and non-members. Study of the average score of income in these two groups indicates non-members have a higher income compared to members. Furthermore, there is a significant difference at 1% level between the education level of members and non-members. Study of the average score of education level between these two groups' shows that non-members have higher education level compared to members. Finally, the results indicate that there is significant difference at 5% level between welfare facilities of members and non-members. In addition, no significant difference was observed in the variable of increase of monthly income between the two groups (Table4).

In this research, in order to study the difference between the two groups under study in terms of comparison of social capital components evaluated based on ordinal scale, Mann-Whitney U test was used, the results of which are provided in Table 5.

Results obtained from the analysis and comparison of the average ratings which are considered as a part of Mann-Whitney test parameters show that there is a significant difference between members and non-members of the cooperative in terms of all components, except for the component of trust in institutions which lacks a significant difference.

Table 4
Comparing the Two Groups Based On Individual Characteristics and Family Members and Non-Members of Cooperatives (Independent T Test)

Classification variable	Group	Variable comparison	Mean	SD	t	*P*-value
Membership	Member	Age (Year)	5.28	0.238	3.455	0.064
	Non-members		3.38	0.393		
Membership	Member	History (Year)	5.48	0.182	117.463**	0.000
	Non-members		6.33	0.459		
Membership	Member	Number of persons (Person)	3.89	0.282	0.072	0.789
	Non-members		4.12	0.283		
Membership	Member	Lands (Hectare)	1.30	0.366	27.520**	0.000
	Non-members		1.61	0.545		
Membership	Member	Distance to the cooperative (km)	1.30	0.549	16.561**	0.000
	Non-members		1.57	0.263		
Membership	Member	monthly income (Million Toman)	1.21	0.365	45.393**	0.000
	Non-members		1.96	0.642		
Membership	Member	Increase revenue (Million Toman)	1.22	0.616	0.701	0.403
	Non-members		1.20	0.501		
Membership	Member	Accommodations	1.89	0.163	7.244**	0.007
	Non-members		1.99	0.159		
Membership	Member	Education	1.38	0.433	26.446**	0.000
	Non-members		1.70	0.465		

Table 5
Comparison of Social Capital Components Forester Member and on-Member Cooperatives' Forester (Mann Whitney U Test)

Classification variable	Group	Variable comparison	Rank mean	Mann whitney U	*P*-value
Membership	Member	Social cooperation	128.19	7903.000	0.000
	Non-members		172.81		
Membership	Member	Social Interaction	128.01	7877.000	0.000
	Non-members		172.99		
Membership	Member	Social conflict	171.28	8132.500	0.000
	Non-members		129.72		
Membership	Member	Network of informal relations	136.23	9109.500	0.003
	Non-members		164.77		
Membership	Member	Reliance on others	176.94	7284.500	0.000
	Non-members		124.06		
Membership	Member	Trust Input	148.08	10886.500	0.591
	Non-members		152.92		
Membership	Member	Social participation	137.46	9294.500	0.005
	Non-members		163.54		

In order to explain the amount of changes and determine an equation for estimating social capital components among member and non-member forest dwellers of forestry cooperatives as the dependent variable along with independent variables for the correlation analysis, the linear multivariate regression analysis was used. Results of regression models were analyzed using the F test. First, the total dispersion among the response variable's data was measured and then the regression line was fitted (Table 6).

Table 6
Regression Analysis Results

	SS	df	Mean square	F	*P*-value
Regression	22.250	7	3.179	17.56	0.000
Residual	25.750	292	0.181		
Total	48.000	299			

a. Predictors: (Constant),
Social cooperation, social interaction, social conflict, the informal network of relationships, trust others, trust inputs and community participation

The coefficient of determination R2 for variables entered at the regression equation was 0.297 (Table 7) which shows the relatively high power of independent variables in anticipating the changes of dependent variable.

Table 7
Model Summary

R	R Square	Adjusted R square	Std. Error the estimate
0.545[a]	0.297	0.271	0.425

The adjusted coefficient of determination for this equation was 0.280. This analysis shows that approximately 68% of changes in the dependent variable were determined by the independent variables entered at the regression equation.

CONCLUSION

As a general conclusion, most people under study in this research had a relatively high age, were illiterate and or had primary education, high experience in the animal husbandry and average low income. The mentioned characteristics are the most important personal characteristics of forest dwellers in the area under study. Since most of these characteristics are fixed and invariable, they can be considered as an obstacle in the acceptance of development plans and lead to the resistance of forest dwellers against the acceptance and adoption of such plans. It means that effective and variable factors such as the social capital must be considered. Furthermore, these cooperatives as a local organization could increase intergroup social capital components among their members and consequently, improve the cooperation and participation in the implementation of development plans.

According to the research findings on the effective role of social awareness of respondents in the performance of cooperatives, it

is suggested to adopt a systematic management in order to pay attention to the job cycle and situations of people in the cooperative. Regarding the effective role of social capital of respondents, holding scientific conferences in towns by respective institutions such as the City and Province General Department of Cooperatives, the City and Province Agriculture Organization and finally the Ministry of Cooperatives with an emphasis on the concepts of social capital, and introducing the effect of capabilities and strong presence of social capital on the performance of cooperatives will be useful for cooperatives members. Regarding the role of social participation variable in the improvement of cooperatives' performance, it is suggested that cultural-social plans are considered and supported among cooperatives' members in order to strengthen the social solidarity among these people. Regarding the very important and effective role of social participation component of respondents in the performance of cooperatives, identification of special abilities of members and then their purposeful participation in the cooperative's manufacturing plans and projects based on such abilities will be effective.

Regarding the effective role of social trust of people in the performance of cooperatives, it suggested to adopt strategies in cooperatives to turn the social relationship between members and managers to a mutual one based on the mutual trust and their activity has both financial aspects and social benefits and foresight for members; also, the attempt of cooperatives' managers to build trust in the cooperative is one of the important measures in this area.

Suggestions for follow-up research:

1) In order to make a correct conclusion and study the efficiency of cooperatives under study as well as the efficiency of cooperatives in the sustainable exploitation of natural resources at the eastern region of Guilan Province, the possibility of their creation and expansion at other western areas of the province was studies by experts.

2) The possibility of forming industries such as mineral water must be studied in cooperatives which could use the mineral water spring in the area under their coverage in order to take an appropriate step for the economic boom of cooperatives' members.

3) The possibility of turning forest products to economic forms at the region must be studied in order to improve the income of cooperatives' members.

4) Training courses must be held in the area of social participation of cooperatives members.

5) Since the average livestock unit of members is high and there is a significant positive relationship between the livestock unit owned by members and their participation in the exploitation, it is suggested to use members with higher livestock units in order to gain more success in projects of livestock evacuation from forest and making a balance between livestock and rangeland.

REFERENCES

Agahi, H., & Karami, Sh. (2012). A study of factors effecting social capital management and its impact on success of production cooperatives. *Annals of Biological Research, 3*(8), 4179 – 4188.

Ahmadi Friooz Jaee A, Sadighi H, & Mohammadi MA. (2006). Comparing components of social capital of member and non-member farmers of rural cooperation organizations. *Journal of Social Welfare, 6*(23), 93-111.

Ahmadi, S. A., & Feizabadi, H. (2011). Investigating social capital and effect of that on the organization improvement (Case study: Staff Organizations of Tehran municipality. *Journal of Public Administration, 3*(6), 35-88.

Ahmadian, M., & Moeini A. (2016). The role of social capital in cooperative activities (Case study of Balouliyat Village in Kashmar). *Journal of Social Sciences, 11*(22), 1-14.

Atuahene-Gima, K., & Murray, J. Y. (2007). Exploratory and exploitative learning in new product development: A social capital perspective on new technology ventures in

China. *Journal of International Marketing, 15*(02), 1-29.

Barr, A. (2000). Social capital and technical information flows in the Ghanaian manufacturing sector. *Oxford Economic Papers, 52*(3), 539-559.

Grootaert, C. (1999). *Social capital, household welfare, and poverty in Indonesia*. Washington: The World Bank.

Heidari, S. V. (2016). Comparison of social capital components of the productive cooperatives'members and farmers of non-member of the productive cooperatives in rural areas, Parsabad County. *Journal of management system, 17*(5), 19-30.

Heydarpour Tootkaleh, Z., Shabanali Fami, H., Ali Asadi, Malek Mohammadi, (2009). The role of membership in forestry cooperatives in the exploitation of forest resources in west Mazandaran. *Cooperation*, *210*, 1-19. (In Persian)

Krause, D. R., Handfield, R. B., & Tyler, B. B. (2007). The relationships between supplier development, commitment, social capital accumulation and performance improvement. *Journal of operations management, 25*(2), 528-545.

Loghman, M., Zarabadi, Z. S., & Behzad Far, M. (2017). Explaining the indigenous model of Urban management in residential neighborhoods (In approaches to social capital elements). *International Journal of Urban Management and Energy Sustainability, 1*(3), 43-56.

Rimon, S. (2009). Cooperatives and rural development. Washington, World Bank.

Scrimgeour, F., McDermott A., Saunders C., Shadbolt N., & Sheath G. (2006). New Zealand agribusiness success: An approach to exploring the role of strategy, structure and conduct on firm performance, Paper Presented at to New Zealand Agricultural and Resource Economics Society, August ,25-27.

Tavakoli, M., Heydari, A., & Shahmoradi, L. (2011). Analysis of the situation of social capital resources in rural development: A case study of the central city of Nor Abad Mamsani, Iran. *Journal of Geography and Regional Planning, 4*(10), 578- 585. Retrieved 18 September 2011 from http://www.academicjournals. org/JGRP.

Torabi, Pardis, Heydari, Aligholi, & Mohammad Gholinia, javad (2010). Study of the effect of social capital components in the performance of cooperatives. Case study of livestock and poultry cooperatives in Mashhad Township. *Cooperation*, *21*(2), 1-20. (In Persian)

Torfi, A., Kalantari, K.H., & Mohamadi, Y. (2011). Effective components on social capital in rural production cooperatives in Koohdasht County of Lorestan Province. *Journal of Agricultural Research, 6*(24), 5512-5519.

Zare, S. A., Eslami, B., & Mehdipour, K. M. (2012). Analyzing the influence of social capital on the success of production cooperatives of yazd.

Zhang, L. (2007). *Social capital accumulation, business governance, and enterprise performance: A structural-equation-model approach*, unpublished thesis, (M.Phil.), Hong Kong University of Science and Technology, Appears in Collections Retrieved from http://hdl.handle.net/1783.1/5566.

Zuka, S. (2013). Myths and realities in community management of common pool resources in Malawi: social stratification as a negative side-effect of social capital. *Journal of Natural Resources Policy Research, 5*(4), 227-239.

How to cite this article:
Zare, M. & Eslami, A. (2018). Social capital components of forest dwellers of forestry cooperatives in Iran (Case of Siahkal County). *International Journal of Agricultural Management and Development, 8*(4), 553-564.
URL: http://ijamad.iaurasht.ac.ir/article_543573_9863a3ece7aa7f769f49996ffe3ae39b.pdf