

Boletín de la Asociación Internacional de Derecho Cooperativo

International Association of Cooperative Law Journal

No. 61/2022

DOI: <http://dx.doi.org/10.18543/baidc612022>

ARTICLES / ARTÍCULOS

Pathology of Rural Production Cooperatives – Evidence from Iran

Patología de las Cooperativas de Producción Rural – Evidencia de Irán

Mohammad Akbari Dolatabad, Mohamad Sadegh Ebrahimi, Amir Mozafar Amini
doi: <http://dx.doi.org/10.18543/baidc.2298>

Submission date: 22.12.2021 • Approval date: 28.10.2022 • E-published: December 2022

Derechos de autoría (©)

El *Boletín de la Asociación Internacional de Derecho Cooperativo* es una revista de acceso abierto lo que significa que es de libre acceso en su integridad inmediatamente después de la publicación de cada número. Se permite su lectura, la búsqueda, descarga, distribución y reutilización legal en cualquier tipo de soporte sólo para fines no comerciales y según lo previsto por la ley; sin la previa autorización de la Editorial (Universidad de Deusto) o el autor, siempre que la obra original sea debidamente citada (número, año, páginas y DOI si procede) y cualquier cambio en el original esté claramente indicado.

Copyright (©)

The *International Association of Cooperative Law Journal* is an Open Access journal which means that it is free for full and immediate access, reading, search, download, distribution, and lawful reuse in any medium only for non-commercial purposes, without prior permission from the Publisher or the author; provided the original work is properly cited and any changes to the original are clearly indicated.

Pathology of Rural Production Cooperatives – Evidence from Iran

(Patología de las Cooperativas de Producción Rural – Evidencia de Irán)

Mohammad Akbari Dolatabad¹
Mohamad Sadegh Ebrahimi²
Amir Mozafar Amini³
Isfahan University of Technology, Isfahan (Iran)

doi: <http://dx.doi.org/10.18543/baidc.2298>

Submission date: 22.12.2021

Approval date: 28.10.2022

E-published: December 2022

Summary: 1. Introduction. 2. Research of background. 3. Methods. 4. Results. 5. Discussion. 6. References.

Sumario: 1. Introducción. 2. Investigación de antecedentes. 3. Métodos. 4. Resultados. 5. Discusión. 6. Referencias.

Abstract: Cooperative rural production companies are one of the most important types of cooperative system in Iran. Its activities have been started since 1963. It seems that this farming system hasn't been able to become a source of positive developments to date. The present study seeks to assess the pathology of rural production cooperatives. The statistical population of this research is 55 rural cooperatives of Isfahan province with 21213 members that 41 cooperatives are active, with 16,870 members. The data collection method was documentary and survey. The required information for this research was collected by using a library method as well as interviewing method and completing the questionnaire. The sampling method was randomly classified according to the number of members of each cooperative based on sample size. According to the Cochran formula, 217 samples were determined and questionnaires were completed by the members. Also, 98 questionnaires were completed by the managers and board of cooperative production companies. The results showed that at least seven categories of damaged can be listed for

¹ MSc Graduate Student of Department of Rural Development, College of Agriculture, Isfahan University of Technology, Isfahan, 84156-83111, Iran, Email: mo.akbari71@gmail.com.

² Assistant professor of Department of Rural Development, College of Agriculture, Isfahan University of Technology, Isfahan, 84156-83111, Iran, Email: ebrahimi_ms@iut.ac.ir

³ Associate professor of Department of Rural Development, College of Agriculture, Isfahan University of Technology, Isfahan, 84156-83111, Iran, Email: Aamini@iut.ac.ir

these cooperatives, which are: adverse characteristics in cooperative members, adverse characteristics in cooperatives management, lack of communication, trust and participation of members with the management of cooperatives, low social activity of members in cooperatives, lack of effectiveness training for cooperative members, dissatisfaction with cooperative performance and lack of social capital.

Keywords: Rural Production Cooperative, Training, Pathology, Iran.

Resumen: Las empresas cooperativas de producción rural son uno de los tipos más importantes de sistema cooperativo en Irán. Sus actividades se han iniciado desde 1963. Parece que este sistema de cultivo no ha sido capaz de convertirse en una fuente de desarrollo positivo hasta la fecha. El presente estudio busca evaluar la patología de las cooperativas de producción rural. La población estadística de esta investigación es de 55 cooperativas rurales de la provincia de Isfahan con 21213 miembros, de las cuales 41 cooperativas con 16870 miembros están activas. El método de recolección de información fue documental y encuesta. La información requerida para esta investigación se ha recopilado mediante el método de la biblioteca, así como mediante entrevistas y cuestionarios. El método de muestreo se clasificó aleatoriamente en función del número de socios de cada cooperativa en función del tamaño de la muestra. Con base en la fórmula de Cochran, se seleccionaron 217 muestras de socios y 98 muestras de gerentes de empresas cooperativas de producción. Los resultados de la investigación muestran que las cooperativas de producción rural no han tenido mucho éxito. La patología de las causas del fracaso de estas cooperativas muestra que factores como las características psicológicas de los socios, Las características gerenciales desfavorables, así como factores sociales como la confianza en la participación, influyen en el desempeño inadecuado de las cooperativas. Además, los resultados de la investigación muestran que la educación no ha logrado que las cooperativas sean más efectivas. Asimismo, la falta de capital social es la principal razón de la ineficiencia de este tipo de cooperativas de producción.

Palabras clave: Cooperativa de Producción Rural, Formación, Patología, Irán.

1. Introduction

Strengthening and developing the agricultural sector has a significant role to play in strengthening the economic base of developing countries. Since the agricultural sector is important in terms of meeting the food needs of the people, the supply of raw materials for industry, employment and income generation, the stability and continuity of growth in the agricultural sector is one of the main factors in social stability and economic growth (Eftkhari *et al.*, 2009). Most of the developing and less-developed countries are characterized as rural nations where most of the people are living in rural areas and engaged mainly in agriculture. That is why rural development inevitably is a major challenge for these countries. Improvement of agriculture from a traditional- subsistence structure to a modern-commercialized ones have created some new problems such as unemployment and ultimately a migration from rural areas to urban centers. There were a lot of experiences, which show us, rural development project, which only aimed at only improvement of agricultural structure, have not been very successful to reach the general nations' development targets. A universally accepted definition of "cooperative" has not been reported in the literature, however three basic principles capture the essence of a cooperative enterprises and they are: user-ownership (users provide the equity investment in a cooperative and have an ownership claim on its assets), user control (users elect directors and democratically decide other key issues for their cooperative), and user-benefits (users receive both the services provided and a share of the earnings on the basis of how much business they conduct with the cooperative) (Sadighi and Darvishinia, 2005). Production cooperative is a kind of agricultural farming system. This system is in the legal form of a non-governmental productive economic organization with relatively scientific and specialized management. The organization relying on the people (members) or cooperative decisions through assemblies and board, while maintaining the principle of individual ownership is motivated individual and family facilities and activities (Zare *et al.*, 2015). Agricultural development is one of the main goals that all developing countries such as Iran try to achieve to engage farmers' cooperation. Accordingly, Rural Production Cooperative (RPC) approach could play an important role in rural development through development of agriculture. Therefore, RPCs are considered to be the most important organizations that pay attention and try to support the rural development in general and the agricultural development in particular through performing activities and services solely for the farmers (Fariba and Ahmadvand, 2017). Therefore, farmers form or participate in agricultural co-operatives to overcome barriers such as poverty, market failure, missing services, de-

creased income, and reduced transaction costs with traders and contribution to the development of the community. Agricultural co-operatives help in enhancing productivity through access to resources and management skills as members. Pool their resources together, and through access to resources co-operatives can improve their profit and standard of living. Agricultural co-operatives establish viable and strong linkage with extension agencies in the field of agriculture and technology so that they could access sufficient resources buying of seeds, selling of grain or even helps with the marketing efforts' the development of small scale farmers and other communities(Vink, 2012).

The concept and term cooperative was introduced as an economic organizational form in the nineteenth century and is now recognized as the dominant organizational form in the world (Noruzi and Westover, 2010 and Aref, 2011). The purpose of forming cooperatives is to create a secured environment in terms of food security and the improvement of the standard of living among other members of the community agricultural cooperatives play an important role in the development of agriculture in industrialized countries as suppliers of farming requisite, marketers of agricultural commodities and providing services such as storage and transport (Derr, 2013). According to the International Cooperatives Association (ICA), there are nearly three million cooperatives with more than 1.2 billion members in the world, in other words, one in six people in the world are cooperative members. They are strong and healthy: the Top 300 cooperatives and mutual report a total turnover of 2.1 trillion USD (World Co-operative Monitor, 2017; ICA, 2016). The cooperatives have an important role in social and economic empowerment of people, especially rural people in any country and community. Also, cooperatives can improve the standard of living of villagers and thus eradicate and reduce poverty, especially in developing countries and underdeveloped contribute significantly (Boudlaie *et al.*, 2018). After the land reforms in 1963, in order to solve the problem of micro and dispersion of arable lands and the issue of applying proper management and using advanced methods at that time, rural production cooperatives were formed. This action was carried out according to the Law on Production Cooperatives and Land Integration (approved in 1971) and by 1978, 39 production cooperatives were established in the country. Rural production cooperatives, agro-industry companies, Joint agricultural corporations, rural and nomadic cooperatives, joint production cooperatives, new chief landowners and petty landowners are all the consequences of the "land reform" in Iran since 1963. Land reform caused practical fragmentation of agricultural lands. In order to overcome this problem and organize fragmented lands the government established various companies, including rural production cooperatives for land uti-

lization. Such cooperatives have become more important than the other companies and cooperatives, because they respect the ownership of the members, as well as the decisions made by members in the framework of the Statute, and also acknowledge the members' activities in their field of work, and are welcomed by the farmers. The formation of rural production cooperatives in the rural areas has economic, social, environmental and political effects. The necessity and importance of such cooperatives in the rural economy and rural development are not overlooked, and the formation of rural production cooperatives offers benefits for people in rural areas. After the revolution in Iran (1979), about half of the production cooperatives were dissolved and the rest, which were 19 units, continued to operate with almost no government support. In the 1980s, the attention of professional and scientific circles was drawn to the issue of exploitation systems and achieving more appropriate methods of resource exploitation, and the revival and development of production cooperatives in particular and attention to the agricultural exploitation system in general were on the agenda of the Ministry of Agriculture. By the end of 2009, the number of rural production cooperatives in Iran reached 1230 and in 2019, their number reached 1358 companies (CORCI⁴, 2019).

Table 1
Data related to rural cooperatives in Iran (2019)

Variables	Data
Number of rural cooperatives	1358
Number of Rural Production Cooperatives Union	61
Cooperatives farming land in Iran	4,023.000 hectares
Members	394,000
Percent of total of irrigated land in Iran	30%
Share in the country's wheat production	37%
Share in the country's sugar beet production	36%
Share in the production of rapeseed in the country	35%
Share in the country's barley production	31%
Share in the production of barberry in the country	79%
Share in the production of almonds and walnuts in the country	50%
Share in the country's olive production	35%
Share in the country's pistachio production	19%

Source: (CORCI, 2019).

⁴ —Central Organization of Rural Cooperatives of Iran.

2. Research of background

In most developing countries, numerous researchers have conducted extensive research on the effectiveness and success of rural and agricultural cooperatives. For example, in Turkey, Ethiopia, China and some other countries, it has been shown that various damages can be observed and identified in the development of rural and agricultural cooperatives (Mohammed and Lee, 2015; Gulen, 2013; Abebaw and Haile, 2013). These damages are classified and presented in categories such as individual, organizational and educational factors.

The results of Delgado (2007) study showed that production cooperatives increase the participation of villagers in rural development programs and equitable distribution of resources and equal access to economic and social opportunities for villagers.

Bazrafshan and Shahin (2010) studied the pathology of rural production cooperatives in Iran. The results of this study showed that the most important harms that threaten production cooperatives are: limited members "knowledge of the principles and philosophy of forming production cooperatives, cooperatives" tendency to provide services, poor training of cooperative members, limited capital, rural dispersion and population decline. The tendency of cooperatives towards the government, limited trust or distrust of members in cooperatives, lack of cooperation and acceptance of members' responsibilities, lack of attention to the marketing of agricultural products, lack of specific rules about cooperatives.

Siegal (2010) in his research considers the most important role of cooperatives in the field of sustainable agricultural development as the distribution of wealth in order to achieve social justice, providing tools for villagers, eliminating unnecessary intermediaries in work and agricultural activities and expanding education among members.

Bigleri *et al.* (2013) in relation to empowerment strategies of production cooperatives from the perspective of national and provincial experts showed that empowerment of production cooperatives is: the process of improving the individual, group and organizational capacity of all individuals and organizations involved in the activities of production cooperatives and Also, creating appropriate social and economic conditions with the ultimate goal is to increase the productivity of production cooperatives.

Abi Bao and Hailey (2013) studied the role of cooperatives in accelerating the adoption of agricultural technologies by small farmers in Ethiopia. The results of this study showed that cooperatives can be used to transfer appropriate technologies, especially for small-scale farmers, and thus to empower people in local communities.

Heidari *et al.* (2015) in the study of indicators for identifying successful agricultural cooperatives showed that the most important indicators for identifying the success of cooperatives can be divided into six dimensions: economic, social, legal, managerial, individual and educational.

Wossen *et al.* (2017) in their study examined the impact of increasing access to cooperative membership on technology acceptance and family welfare in Nigeria using various techniques. The results of this study show that cooperative membership has a positive and significant effect on access to acceptance of technology and increase family welfare.

Khosravi-pour and Ahmadi (2017) investigated the challenges and strategies for the development of rural production cooperatives. The result of this research showed that, the low starting capital of companies at the time of establishment, the government's increased attempts to form rural cooperatives, and contextualize and inform farmers regarding different regions to form a cooperative to the will of farmers, the impotence of managers and farmers' infirm belief in the formation of a cooperative and group work in rural production cooperatives are among the restrictions that such cooperatives are struggling.

Arayesh (2017) investigated the relationship between extension educational, psychological factors and the participation of members of agricultural co-operative in Iran. The result of research showed that there was a significant relationship between the extension educational, psychological features and level of participation of members of agricultural co-operative.

Grashus and Su (2018) reviewed the theoretical and empirical literature of cooperatives and examined issues such as members' attitudes, cooperative performance, ownership, governance, and cooperatives' financial capital. The result of this research showed that cooperative membership is found to positively impact price, yield, input adoption, income, and other indicators of member performance. The results of this study emphasize that the inefficiency of cooperatives is mostly due to increased heterogeneity in the attitudes and goals of members, especially in terms of commitment and participation of members in cooperative activities.

Nekouie *et al.* (2019) investigated the stability of farming system in rural production cooperatives. The result of this research showed that this type of farming system is semi-stable. Developmental strategy (SO) was adopted as the best strategy to achieve sustainability, and the focus was on endogenous development through reinforcing internal strengths to obtain external opportunities. It includes promoting self-reliance through increasing members' participation in cooperative, empowering the staff and members (i.e. the experienced managing director and the staff with required specialty and expert holding promotional classes), using multilevel, multi-sectorial, multi-cluster, collabo-

rative, and holistic approaches to manage the RPCs, and promoting systems based on collaborative team work.

3. Methods

The present study is an applied research in terms of purpose and descriptive-survey research in terms of data collection [Sarmad *et al.*, 2017]. This research is also a type of field research in which the researcher is present to collect data in the desired areas. The statistical population of this research is 55 rural production cooperatives. In this statistical population, 217 members of cooperatives as well as 98 members of the board of directors of cooperatives participated in the survey. For effective pathology of rural production cooperatives in Iran, seven indicators were used in the questionnaire. These seven indicators include (managerial structure, economic activities, technical activities, infrastructure, empowerment (educational activities, extension and creativity and innovations), deprivation special privileges, observance of laws and regulations and instructions) has been considered and appropriate variables have been considered for each index. In general, in the pathology of cooperatives, three general indicators of performance, effectiveness and participation were used. In this research, Cronbach's alpha method was used to determine the reliability of the instrument (Table 2). Cronbach's alpha for the whole questionnaire was 0.810 (Equation 1 was used to calculate Cronbach's alpha).

Equation 1:

$$a = \frac{k}{k-1} \left[1 - \frac{\sum_{i=1}^k s_i^2}{\sigma^2} \right]$$

Table 2
Cronbach's alpha coefficient for questionnaire

Component	Number of variable	Cronbach's alpha coefficient
Performance	16	0.936
Participation	16	0.938
Effectiveness	16	0.952

The KMO coefficient was used for factor validity of the research instrument (questionnaire), which was calculated in three general indicators (Kalantari, 2018) of performance, effectiveness and participation that in all these indicators, it was higher than the desired level (0.75) (Table 3).

Table 3
KMO measure and Bartlett's test to assess appropriateness
of the research instrument (questionnaire)

Scale Name	KMO	Bartlett's test of sphericity	
Performance	0.935	Approx. chi- square 1906.352	Sig 0.000
Participation	0.932	Approx. chi- square 1955.960	Sig 0.000
Effectiveness	0.938	Approx. chi- square 1854.251	Sig 0.000

4. Results

For a more appropriate and desirable review of the research results, the classification of pathologies performed is as follows:

Pathology 1: Adverse characteristics in cooperative members

The average age of members of rural production cooperatives in Iran is high, so that the results show that the average age of members of cooperatives is close to 47 years, so that 34% of the sample members are over 50 years old and only 11 percent of the members were under 30 years old. The majority of members of production cooperatives are men (95%), so the research findings indicate a low presence of women in production cooperatives. In terms of the level of education of cooperative members, it is very unfavorable that 6% of the statistical sample is illiterate and 44% of the statistical population has education in reading, writing, elementary and middle school and only 27% of university students have postgraduate, bachelor or higher education. 41% of the statistical samples own less than half a hectare of land and this is a major problem and agricultural infrastructure in Iran. Only 38% of people associate with production cooperatives on a weekly basis 58% of the members are in contact with the cooperative at least once a month, which is a sign of the good relationship of the members with the cooperative, and 6% of the members rarely and compulsorily have no connection with the cooperatives, which is contrary to the principles of cooperatives.

Table 4
Individual characteristics of members of rural production cooperatives

Variables	Frequency	Percent	Cumulative percent
Gender			
Man	207	95.0	95.0
Female	10	5.0	100.0
Total	217	100.0	
Age (years)			
30>	24	11.1	11.1
30-40	55	25.3	36.4
40-50	65	30.0	66.4
50-60	43	19.8	86.2
<60	30	13.8	100.0
Total	217	100.0	—
Educational level			
Illiterate	13	6.0	6.0
Primary school	57	26.0	32.0
Secondary school	60	28.0	60.0
High school	27	13.0	73.0
The higher education	60	13.0	100.0
Total	217	100.0	—
The amount of land owned			
0.5>	43	19.8	19.8
0.5-1	46	21.2	41.0
1-2	36	16.6	57.6
2-5	49	22.6	80.2
<5	43	19.8	100.0
Total	217	100.0	—
Members' relationship with cooperatives			
Weekly	82	38.0	38.0
Monthly	72	33.0	71.0
Multi-month	50	23.0	94.0
Rarely and compulsively	7	3.0	97.0
Lack of communication	6	3.0	100.0
Total	217	100.0	—

Pathology 2: Adverse characteristics in cooperatives management

Literature revealed that management of cooperatives is a crucial factor to success or failure. Forty-two percent of the members stated that they have little or no follow-up on the insurance of their products by production cooperatives, and only 32% of the members stated that they follow up the insurance of their products more or more completely by the production cooperatives. This statistic indicates that cooperatives should make more efforts to insure their members' products so that members can produce their products with more confidence. 43% of the statistical sample of cooperation of production cooperatives to sell their products stated no or very little, and 34% of most or all of their products were produced by production cooperatives. This statistic indicates that production cooperatives should make more efforts to sell their members' products.

Table 5
Management characteristics of rural production cooperatives

Variables	Frequency	Percent	Cumulative percent
Agricultural insurance			
None	42	19	19
Very little	50	23	42
Half of the products	54	25	67
More products	42	19	86
Completely	29	14	100
Total	217	100	
Sales of members' products			
None	37	17	17
Very little	59	26	43
Half of the products	47	23	66
More products	44	21	87
Completely	30	13	100
Total	217	100	—

Pathology 3: Lack of communication, trust and participation of members with the management of cooperatives

Another important disadvantage of the development of production cooperatives is that despite decades of activity of such companies, cooperative members do not have effective communication, trust and partnership with its management.

Table 6
Communication, trust and participation of members with the management of cooperatives

Variables	Cooperative pillars	Mean	Mod	Sd
Communication	Cooperative Managing Director	2.77	4	1.312
	Boards of Directors	2.40	3	1.305
	Inspections	2.31	2	1.339
	Administrative staff	2.71	4	1.371
Trust	Cooperative Managing Director	2.88	4	1.275
	Boards of Directors	2.45	3	1.312
	Inspections	2.10	3	1.384
	Administrative staff	2.61	4	1.407
Participation	Cooperative Managing Director	2.82	4	1.320
	Boards of Directors	2.24	3	1.316
	Inspections	2.00	3	1.386
	Administrative staff	2.53	3	1.385

Source: 5-point Likert scale: 1=very low, 2=low, 3=medium 4=high and 5= very high.

Pathology 4: Low social activity of members in cooperatives

Although one of the ways to empower the local community is to use cooperatives and involve rural people in social activities, but it seems that after several decades of rural production cooperatives in Iran, these companies have not yet been able to lay the groundwork. Perform such activities.

Table 7
Social activity of members in cooperatives

Social activity	Mean	Mod	Sd
Participate in public meetings of cooperatives	2.51	2	0.924
Provide experiences	2.48	3	0.918
Follow the advice of members	2.28	2	0.990
Cooperation of members in times of trouble	2.35	2	1.129
Work relationship and job relationship of members with each other	2.40	3	0.981
Cooperative members help each other during the work season	2.36	2	1.102
Discussion of members of cooperatives with each other	2.06	2	1.096
Resentment and personal differences between members of cooperatives	1.58	1	1.328

Source: 5-point Likert scale: 1=very low, 2=low, 3=medium 4=high and 5= very high.

Pathology 5: Lack of effective training for cooperative members

Education is the most effective way to transfer innovation and empower the local community. Production cooperatives were expected to make better use of this approach to empower people, but research shows that the training provided was inadequate and ineffective.

Table 8
Training for cooperative members

Educational and extension activities	Mean	Mod	Sd
Extensional model-production sites	1.60	1	1.478
Research-extension projects	1.28	1	1.427
School plan on the farm	1.25	1	1.435
Transfer plan, farm day	1.36	1	1.488
Demonstration farms, gardens and livestock	1.44	1	1.490
Educational, promotional visits	1.71	1	1.537
Collaboration in the production of radio and television programs	1.08	1	1.452
Extensional meetings and workshops	2.01	2	1.047

Source: 5-point Likert scale: 1=very low, 2=low, 3=medium 4=high and 5= very high.

Pathology 6: Dissatisfaction with cooperative performance

One of the serious damage of rural production cooperatives in Iran is the dissatisfaction of members with the areas of work and improper performance of the company in these cases. The better management of cooperatives in performing their tasks, could be the greater the satisfaction of cooperative with the structural factors of cooperatives. Therefore, members are more committed to cooperative behavior, and show positive feedback to cooperative management which leads to the better performance of cooperative management (Najafi *et al.*, 2019).

Table 9
Dissatisfaction with cooperative performance

Cooperative fields of work	Mean	Sd	CV
Supply, production and distribution of agricultural inputs (fertilizers, pesticides, seeds, seedlings, livestock and poultry feed, etc.)	2.33	1.516	0.651
Land consolidation and observance of cultivation pattern in the form of a single ship system	2.30	1.505	0.654
Establishment of irrigation and drainage networks and water supply	2.30	1.554	0.675
Providing services for pest and plant disease management	2.00	1.461	0.731
Education and promotion of technical issues, specialized in agriculture	1.88	1.512	0.804
Cooperative education and issues related to cooperatives	1.76	1.469	0.834
Pursue insurance of agricultural products and collection of damages of insured for farmers	1.87	1.586	0.848
Carrying out operations related to the improvement, development and production of agricultural products	1.68	1.439	0.856
Providing services for harvesting, marketing and product sales	1.70	1.459	0.858
Guaranteed purchase of surplus wheat from farmers	1.89	1.631	0.862
Development and supply of required agricultural machinery and tools and mechanization development	1.66	1.473	0.887
Build roads and farm access infrastructure	1.55	1.536	0.991
Establishment of industries for conversion, packaging and processing of agricultural products	1.17	1.415	1.209
Providing low-interest loans	1.17	1.435	1.229
Supporting the creation, improvement and modernization of livestock and animal husbandry units	1.38	1.467	1.063
Flood control, runoff control and rainfall storage	1.15	1.316	1.144

Source: 5-point Likert scale: 1=very low, 2=low, 3=medium 4=high and 5= very high.

Pathology 7: Lack of social capital

Research results show that at the 95% level, there is a positive and significant relationship between the variables of the degree of relationship and the degree of participation of members with production cooperatives and its success. In this regard, the more communication cooperatives members have and the more members participate in cooperative activities, the more successful the production cooperatives will be (Table 10).

Table 10
Relationship between social characteristics of members
of production cooperatives with education index

Variable x	Variable y	R	sig
Members' relationship with the cooperative	Education provided to members by the cooperative	0.115	0.091
Members trust to the cooperatives		0.146*	0.032
Members' Satisfaction to the cooperative		0.154*	0.023
Members' participation with the cooperative		0.099	0.148

5. Discussion

Empowerment of rural people and development of local community is the most important development goal for the developing countries of the world. After the Second World War, in most countries of the world, in order to balance the region and develop the rural and agricultural sectors, carry out land reforms in the development programs of the countries. Iran also carried out land reforms in the country in the early 60's (1963) and one of the most important strategies for the development of rural communities in this program was to use the capacity of cooperatives and establish rural production cooperatives. Nearly 60 years after the establishment and development of rural production cooperatives, it seems that these cooperatives have not been able to be effective and successful in achieving the predetermined goals. The present study was conducted with the aim of pathology of Iranian rural production cooperatives. The results showed that at least six categories of damaged can be listed for these cooperatives, which are:

- Adverse characteristics in cooperative members
- Adverse characteristics in cooperatives management
- Lack of communication, trust and participation of members with the management of cooperatives
- Low social activity of members in cooperatives
- Lack of effective training for cooperative members
- Dissatisfaction with cooperative performance
- Lack of social capital

In the present study, while enumerating the indicators of cooperative failure, it was tried to emphasize the most important influential variables in each index. In the present study, while enumerating the indicators of cooperative failure, it was tried to emphasize the most important influential variables in each index. As well as Nekouie *et al.* (2019) believed in rural sustainable development planning, sustainable farming systems must be considered as the focal core of any development plan. Since a big part of farming system in rural areas is devoted to smallholdings, promoting cooperation culture by the rural development planners can prepare the ground for empowering the villagers to obtain sustainable development.

The result of research relived that members' knowledge of their cooperative, member technological skills and their participation at cooperative meetings and training courses were especially important for the successful development of farmer cooperatives in the less developed. Also training and education, as one of the cooperative principles, has been recognized as an important actor for the successful development of cooperatives worldwide. The results revealed that regular training has partially increased members' understanding and knowledge on cooperatives and their potentials. This study further suggested that the participatory approach such as role playing is an efficient training tool for the members with limited education.

The results show that the level of education index in production cooperatives is related to the level of trust, satisfaction and greater participation among members, since the research results indicate a positive and significant effect of education on the success of cooperatives. Therefore, it is suggested that any kind of planning to develop the level of satisfaction, trust and participation can lead to improving the level of education and success in cooperatives and vice versa.

6. References

ABEBAW, D and HAILE, M. G. 2013. The impact of cooperatives on agricultural technology adoption: Empirical evidence from Ethiopia. *Food Policy* 38(1): 82-91.

- ALSTON, J. M., and PARDEY, P. G. 2014. Agriculture in the global economy. *J. Eco. Perspect.* 28(1): 121-146.
- ARAYESH, M.B. 2017. The Relationship between Extension Educational and Psychological Factors and Participation of Agricultural Co-operatives' Members (Case of Shirvan Chardavol County, Ilam, Iran). *International Journal of Agricultural Management and Development (IJAMAD)*, 7(1):79-87.
- AREF, F. 2011. Agricultural Cooperatives for Agricultural Development in Iran. *Life Science Journal.* 8: 82-85.
- BIGLERI, N., Medicine Rad, Gh. 2013. And when you thought, n.º Strategies for Empowering Production Cooperatives from the Perspective of National and Provincial Experts, *Economic Research and Agricultural Development of Iran* 1 (44): 113-103.
- BOUDLAIE, H., BOGHOSIAN, A and PANJALI, H.M. 2018. The impact of corporate social responsibility and internal marketing on employee turnover intentions with the mediating role of organizational commitment, 15(4): 29-44.
- BRISCOE, T. 2010. Making worker cooperatives effective in South Pacific. *J. Pacific. Stud.* 16: 243-248.
- CELIK, A., METIN, I. and CELIK, M. 2012. Taking a photo of Turkish fishery sector: a swot analysis. *Procedia Soc. Behav. Sci.* 58: 1515-1524.
- CENTRAL ORGANIZATION OF RURAL COOPERATIVES OF IRAN. 2019. Systems of formation and establishment of cooperatives of rural production, agricultural joint stock, agriculture and industry in the agricultural sector (first edition), Asrar Alam Publications, Tehran.
- DELGADO, C. 2007. Agro industrialization through institutional innovation: Transaction Costs, Co-operatives and Milk-Market Development in the Ethiopian highlands. *Int. Food Policy Res.* 1:101-110.
- DERR, J. B. 2013. The Co-operative movement of Brazil and South Africa. *Sustainable Development*, 1, 1-14.
- EBRAHIMI, Mohammad Sadegh, and MOJTABA GHAEDIYAN. 2021. "Corporate social responsibility and organizational commitment in agricultural cooperatives: evidence from Iran". *International Association of Cooperative Law Journal*, no. 59 (December), 263-83. <https://doi.org/10.18543/baidc-59-2021pp263-283>.
- EFTEKHARI, A., PORTAHERI, M., FARAJZADEH, M. and lawyer HEYDARI, S. 2009. The Role of Empowerment in Agricultural Development, Case Study: Ardabil Province, *Human Geography Research* 69: 103-87.
- FARYABI, M., AHMADVAND, M. 2017. The Determinants of Rural Production Cooperatives' Performance in South of Kerman Province. *Journal of Rural Research*, 8(3), 404-421. doi: 10.22059/jrur.2017.63474.
- GARNEVSKAIA, E., LIUB, G. and SHADBOLT, N. M. 2011. Factors for successful development of farmer cooperatives in northwest china. *International Food and Agribusiness Manage. Rev.* 14 (4): 69-84.
- GOLLIN, D. 2010. Agricultural productivity and economic growth, handbook of agricultural economics 4: 3825-3866.
- GULEN, O. 2013. Women's cooperatives in Turkey. *Procedia Soc. Behav. Sci.* 81: 300-305.

- GRASHUS, J and SU, Y. 2018. A review of the empirical literature on farmer cooperatives: performance, ownership and governance, finance and member attitude. *Annals of Public and Cooperative Economics*, 12(4): 77-102.
- HEIDARI, F., NADERI MEHDI, K., YAGHOUBI FARANI, A. and HEYDARI, A. 2015. Identification indicators of successful agricultural cooperatives, *Quarterly Journal of Cooperatives and Agriculture* 4 (14): 60-39.
- ICA. 2016. SUSTAINABILITY REPORTING FOR CO-OPERATIVES: A GUIDEBOOK, International Cooperative Alliance, March, p. 32.
- KALANTARI, Khalil. 2018. Data processing and analysis in economic and social research. Sharif Publications.
- KHOSRAVIPOUR, B. and AHMADI, M. 2017. Rural Production Cooperatives (Challenges and Strategies). *Management and Entrepreneurship Studies*, 3(4-1): 69-82.
- MOHAMMED, N. and LEE, B. W. 2015. Role of cooperatives in rural development, the case of south nation's nationalities and people region, Ethiopia. *Sci. J. Bus. Manage* 3(4): 102-108.
- NAJAFI, M., NORI, H and AMINI, A. 2019. Assessing the Role of Management in Performance of Rural Production Cooperatives: (A Case Study of Isfahan Province). *Iranian Journal of Agricultural Economics and Development Research*. 50(3): 531-547.
- NEKOU EI NAIENI, S., GHANBARI, Y., BARGHI, H. 2019. Assessing the Stability of Farming System in Rural Production Cooperatives in Isfahan Province and the Effective Strategies to Achieve it. *Journal of Research and Rural Planning*, 8(1), 111-126. doi: 10.22067/jrrp.v8i1.72976
- NORUZI, M. R and WESTOVER, J. H. 2010. Opportunities, Challenges and Employment Relative Advantages in the Cooperative Sector in Iran. *Management Science and Engineering*, 4(3): 10-18.
- SADIGHI, H and DARVISHINIA, H. 2005. Farmers' Professional Satisfaction with the Rural Production Cooperative Approach. *J. Agric. Sci. Technol.* 7: 1-8.
- SARMAD, Z., AS, BAZARGAN. and A., HEJAZI. 2017. Research methods in behavioral sciences. Agah Publications.
- SIEGAL, G. 2010. Toward a model rural development quarterly. *J. Soc. Econ. Dev.* 5(12):106-117.
- VINK, N. 2012. The long-term economic consequences of agricultural marketing legislation in South Africa. *South African Journal of Economics*, 80(4), 553-566
- WORLD CO-OPERATIVE MONITOR. 2017. Exploring the Co-operative economy, Eurisce-ICA.
- WOSSEN, T., T. ABDOULAYE, A. ALENE, M. HAILE, S. FELEKE, A. OLANREWAJU and MANYONG, T. 2017. Impacts of extension access and cooperative membership on technology adoption and household welfare. *J. Rural Stud.* 54: 223-233.
- ZARE SHAHABADI, A., HAJIZADEH MEYMANDI, M. And MOBILE KHALAJ, H. 2015. Socio-Cultural Factors Related to the Success of Production Cooperatives in Yazd, *Social Development Quarterly* 10 (1): 156-127.