



## Preventive Factors to Found Walnut Production Cooperatives in Tuyserkan Township, Iran

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### Abstract

This study was conducted to seek the opinion of walnut producers on barriers affecting the success of producers to found production cooperatives regarding horticultural products in Tuyserkan Township, Iran. A sample of 234 walnut producers were randomly selected through multistage cluster sampling technique. Descriptive-correlation research method was used in this study which has been implemented through the questionnaire. For determining the validity of questionnaire, the face and content validity was used. Reliability for the instrument was estimated at 0.94. According to factor analysis, barriers to found and develop walnut production cooperatives were categorized into seven groups that explained 65.799% of the total variance of the research variables. The results also indicated that lack of cultural infrastructures, inadequate knowledge and incorrect opinions of producers and leaders, inadequate laws and vulnerability and infrastructural barriers had the most effect to found and develop walnut production cooperatives, respectively.

### Keywords:

Barriers, Walnut Producers, Production Cooperatives, Iran

## INTRODUCTION

Changes of the recent age in the fields of economy, culture and social relations have led cooperatives to new conditions through which they couldn't go on without consistency. In industrialized countries, the government has paved effective steps through designing frameworks for the development of cooperatives in economic, social, and political parts. But developing countries face obstacles along the way such as lack of standardized environmental conditions, the mismatch of expectations and abnormal increases in cooperatives quantitatively. Consequently problems are facing cooperatives in developing countries, Iran is also faced with these problems (Abbasi *et al.*, 2009). Experts and sociologists believe that the current conditions of the hand (the slogan of the smaller government for a better future) are seriously considered, so more attention is needed to strengthen the cooperative sector and cooperatives for two reasons. First, strongly controlling is exerted on cooperative system, so responsibilities and controlling costs seem low to the government and finally supervision comes to sense widely more accurate. Second, there will be a new counterpart having important role on increasing the production quality and efficiency. However, during the past years, cooperatives have been able to practice their role and to find their real position in the economy of Iran (Kuhi, 2006). Based on further perspective 1404 and regarding this fact that, Iran should be at first scientific, economic and technology place among the oriental countries, while cooperatives are of successful socio-economic patterns being capable to establish instant development and justice. Considering the role of cooperatives, achieving this target will be feasible only by promoting human and social capitals; so, it is necessary to provide the efficient members in rural communities with a background to improve social and economic capitals in agricultural production cooperatives through one of important substrates of sustainable rural development and employment (Karami and Agahi, 2010a). Iran has a long history of rural solidarity and self-help efforts. However, formal cooperatives with the emphasis on the provision of agricultural

services for their member were introduced by industrialized countries such as England to Iran only about 1940. The agricultural production cooperatives 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 the activities and services offered for farmer welfare. It is generally believed that successfully managed agricultural cooperatives have a great potential in agricultural development in particular and rural development in general (Zarafshani *et al.*, 2010). Farmer organizations have a strong potential for building linkages to interventions/programmers in other sectors. The inter-sector linkages can enable the collective improvement of farmers' livelihoods from a number of government- and donor-supported interventions. Farmer organizations can facilitate a vertical exchange of information; enable farmers to access higher levels of management and contribution in decision-making process (Abdolmaleky, 2012).

The International Cooperative Alliance (ICA) defines a cooperative as "an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically-controlled enterprise". In developed countries agricultural production cooperatives have significantly contributed to the mobilization and distribution of capital resources, entrepreneurship, constitute a forum for education and training, social welfare, poverty alleviation and other socio-economic problems (Tanzanian Federation of Cooperatives, 2006).

The most important agriculture cooperatives types in Iran are agricultural production cooperatives (Zarafshani *et al.*, 2010). In Iran, although, there are many cooperatives in rural area, but, it is alleged that cooperative does not play a significant role in rural development (Aref, 2011). Agricultural production cooperatives are certainly a major contributor to agricultural development in many countries. But, in Iran there are a number of barriers to use effectively agricultural production cooperatives as a tool for agricultural development. There are some

barriers at national, local and organizational levels. Dependency of cooperatives to government and lack of cultural capacity for group collaboration, lack of resources, lack of leaders' knowledge, were the most important elements contributing to limit production cooperatives in agricultural and rural development (Allahdadi and Aref, 2011).

Cooperatives as a critical dimension of market structure in agriculture must periodically be assessed to determine the future viability of the cooperative form of business (Dunn *et al.*, 2002).

There are many studies regarding failure or success of agricultural cooperatives. Amini and Ramezani (2006) in the study of "evaluating effective factors on the success of poultry-farming cooperatives in Tehran province," concluded that the cooperatives have been successful to achieve desired goals in the statute and they indicated that some elements have the most effect on the success of agricultural production cooperatives including the performance of cooperatives, managers' technical competences, membership in cooperative associations, the rate of participation in cooperative issues, profitability of cooperative members, quality of implemented training courses, number of training courses and managers' human talents, respectively. Indeed, there is a positive and significant relationship among these variables and the success of cooperative companies.

Zar'anzhad and Sharifi (2008) studied "an investigation on the attitude of managers and members of Ilam cooperatives towards effective factors for improving the productivity in cooperatives" they also pointed out that boosting financial power and using efficient forces influence promoting the productivity in these cooperatives.

Safari *et al.* (2009) found out, in a study named "effective factors on the success of cooperative companies", that certain elements affect the success of cooperatives including standards, trends, principles, methods of performance and stressing on performing them by employees and members, establishing a proper information system, buying, selling, updated information, continues training, holding educational courses in the fields of investment and fi-

nancial affairs, marketing at level of directors and the board, active participation of members, determining criteria for evaluating the performance and reward, selecting the high experienced managers, sufficient initial capital, holding educational courses, applying the advanced methods of production, creating a rich culture and supporting it, pondering needs appropriately at the beginning of establishing cooperatives, considering the demands of agents and providing them rapidly, modifying laws and regulations and executing them properly.

Karami and Agahi (2010b) in a study entitled "evaluating the role of creativity on the success of cooperatives", based on the viewpoints of respondents, and indicated that there are some factors contributing to success of cooperatives such as: the impact of innovation, access to information, effective and fast system of offers. Didi (2004) concluded that the homogeneity of members and stability of small groups had a considerable impact on the success of cooperatives, as well as he emphasized role of partnership on the utilization of resources and corporate success.

International Labor Organization (2004) considered social properties of human force in the company such as recognition, participation, knowledge, education level, quality of human resources and familiarity with the goals and governmental policies as effective factors on the success of cooperatives.

Bruynis *et al.* (2001) showed that the management and the establishment of formal condition a positive effect on the success of cooperatives. In this study, some factors help promoting cooperatives such as management quality, keeping touch with customers, members' interests, rate of members' trust, retaining members, conducting the board of directors.

Tuyserkan Township has suitable climate and environmental conditions for horticultural products especially for walnut production. Walnut production has the most important role in the rural and agricultural economy of Tuyserkan Township with total area of about 5100 ha which even lies in the first place in Iran (Jihad-e-Agriculture of Tuyserkan, 2013). Un-

fortunately, there are not effective walnut production cooperatives in Tuyserkan. Hence, this paper concerns with studying and investigating barriers contributing to the success for founding and developing walnut production cooperatives as perceived by walnut producers. Therefore, the primary purpose of the present study was to identify barriers to found walnut production cooperatives. The specific objectives of this study were to: (1) describe the demographic profile of walnut producers, (2) identify perceptions and attitudes of walnut producers to participate in cooperatives, and 3) identify barriers to success of walnut producers to found and develop production cooperatives.

## MATERIALS AND METHODS

This study was conducted in the township of Tuyserkan, located in the west region of Iran, with total area of about 1464 square kilometers. Statistical sample in this study was drawn randomly from 600 walnut producers. A number of 234 producers were selected through multistage cluster sampling based on their level of performance characteristics. The research design for this study was a survey design (Delavar, 2004). From a review of the literature, the researcher developed an instrument to collect data. The survey was divided into two sections. The first section was designed to gather data on personal characteristics of walnut producers, included gender, age, years of working experience, level of education, income and etc. The second section was designed to gather data about the producers' perceptions and attitudes with respect to the participation and membership in the walnut production cooperatives. Respondents were asked to rate their viewpoints concerning these variable on a five point Likert-type scale: (5=very much, 4=much, 3=moderate, 2=low and 1=very low). Face and content validity of the questionnaire were established using a panel of experts consisting faculty members in department of agricultural extension and education in Khoramabad Islamic Azad University and extension officers. Questionnaire reliability was estimated by calculating Cronbach's alpha coefficient. Reliability for the instrument was estimated at 0.94. The data was

collected between March, 2013 and May, 2013. After gathering and encoding information of the questionnaires, data was obtained for analysis. Data was analyzed using the statistical package for the social sciences (SPSS, 19). Beside descriptive statistics, analytical statistics (factor analysis and ANOVA test) were employed for detailed analysis. Variables used in "factor analysis" included nineteen barriers on founding and developing walnut production cooperatives. Respondents were asked to rate their viewpoints concerning these variables on a five point Likert-type scale: (5=very much, 4=much, 3=moderate, 2=low and 1=very low).

## RESULTS

### Descriptive statistics

The first objective was to describe the demographic profile and socio-economic demographic characteristics of walnut producers of Tuyserkan Township, Iran. The findings showed that majority of the respondents were male (93.8%). Average age of respondents was 46.76 years. The minimum age of respondents was 27 and the maximum age was 65. Eighty-seven percent (87%) of them were married. Data showed that average household size in study area was 6 members per family. Regarding respondents' education levels, majority of the respondents (82.1%) were high School and illiterate. Fifty-three percent of the producers had more than 9 years of working experience and the rest under 9. Their average working experience was 12.48 years. Study also revealed that principal occupation of the 27% of the respondents was "walnut garden holding". 41% of them were as "garden holder and farmer" and the rest were as "garden holder and rancher". Findings of the study also showed that their average garden land holding was 0.6 ha. Majority of them (93.6%) owned less than 1 ha walnut garden land. Two-thirds (63%) of the producers sell their products in local markets. According to monthly income i.e. [(yearly income)/12], the average of their total monthly income was 9 million Rial per month. 70.5% of the respondents had less than 100 million Rial incomes yearly (Table 1).

The second objective of this study was to



Table 1: Some demographic characteristics of respondents

Feature	Percentage
<b>Gender</b>	
Male	93.8
Female	6.2
<b>Age (years)</b>	
Up to 35	12.8
36-45	37.6
46-55	39.3
Over 56	10.3
Average	46.76
<b>Level of Education</b>	
Illiterate	14.5
< High School	44.8
High School/GED	22.6
College	17.9
<b>Work Experience</b>	
Up to 9	47
10-19	29.5
20-29	11.5
30-39	12
<b>Income (Million Rials)</b>	
Up to 100	70.5
100 – 200	23.1
200 – 300	3.8
300 – 400	2.6

identify perceptions and attitudes of walnut producers to take part in cooperatives. To evaluate respondents' attitude about participation in agricultural production cooperatives, they were asked to rate their viewpoints on a five point Likert-type scale: (5=quite agree, 4=agree, 3=neutral, 2=disagree and 1=quite disagree) concerning twenty given items. According to the sum of scores of each respondent, they were placed in three classes as follows: negative, neutral and positive. Pondering revealed that 72.2% had positive attitude and interest for participation and membership in walnut production cooperatives. Results of the descriptive analysis have been shown in details (Table 2).

Table 2: Descriptive statistics on attitude of the respondents about participation in walnut production cooperatives

Respondents' attitude	Scores	F (%)
Negative	20 –47	6 (2.6)
Neutral	47–73	59 (25.2)
Positive	73– 100	169 (72.2)

The third objective was to identify barriers to success for founding and developing walnut production cooperatives. Exploratory Principal Component Analysis (PCA) was conducted to summarize the variables of the research to a smaller quantity and to determine the factors affecting the success of producers to found agricultural production cooperatives and the obtained factors were subjected to VARIMAX rotation. PCA is a form of factor analysis, which first looks for a linear combination of variables that extracts maximum variance from variables and then identifies a second linear combination to explain the remaining variance, leading to orthogonal, or uncorrelated, factors (Rehman *et al.*, 2007). The value of the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) was 0.72. Nelson and Thompson (2005) reported that KMO values of 0.6 and above are required for good factor analysis. Using the eigenvalue greater than one rule, the PCA suggested seven factors, which accounted for 65.799% variance in scores. The seven factors extracted and named in this study as follows: (1) lack of cultural infrastructures, (2) inadequate knowledge and incorrect opinions of producers and leaders, (3) inadequate laws and vulnerability, (4) infrastructural barriers, (5) insufficient capital resources and information delivery systems, (6) legal supports and insufficient profitability, (7) dependency to government and distrust to the structure of cooperatives (Table 3).

The first factor was called the "lack of cultural infrastructures". This factor had the most eigenvalue (3.802) among the other factors. Also this factor explained 19.011% of the total variances of the variables. "Lack of producers' cultural capacity for group collaboration" was the most important (M=4.68) cultural problems for the success to found walnut production cooperatives. Allahdadi and Aref (2011) revealed that there are some barriers at the national, local and organizational levels towards agricultural production cooperatives. Lack of cultural capacity for group collaboration was an important element contributing to limit production cooperatives in agricultural and rural development as well. Farmers' organizations may be im-

Table 3: Results of factor analysis for barriers to found walnut production cooperatives and the variable of each factor

Barriers to found production cooperatives	Mean± SD	Factor Loading	Eigen-values	Variance (%)	Cum (%)
<b>Lack of cultural infrastructures</b>			<b>3.802</b>	<b>19.011</b>	<b>19.011</b>
Unsuitable socio-cultural performance of existent cooperatives	4.61±0.92	0.782			
Reluctance of the producers to found cooperatives	4.07±1.28	0.706			
Lack of producers' cultural capacity for group collaboration	4.68±0.84	0.599			
Prevention of governmental organs to found cooperatives	4.58±0.84	0.505			
<b>Inadequate knowledge and incorrect opinions of producers and leaders</b>			<b>2.597</b>	<b>12.986</b>	<b>31.996</b>
Lack of confidence to the cooperatives	4.67±0.79	0.775			
Inadequate knowledge of the producers about cooperatives	4.55±1.04	0.675			
Lack of definite aims for cooperatives	4.44±0.88	0.653			
Inattention to the indigenous knowledge by managers	4.64±0.77	0.522			
<b>Inadequate laws and vulnerability</b>			<b>1.755</b>	<b>8.777</b>	<b>40.773</b>
Time-consuming rules	4.54±0.87	0.801			
Low producers' rate of risk taking	4.42±1.02	0.592			
<b>Infrastructural barriers</b>			<b>1.465</b>	<b>7.326</b>	<b>48.099</b>
Inadequate education of cooperative members	4.62±1.05	0.823			
Trend of cooperatives to jobbing and broking	4.28±1.42	0.693			
<b>Insufficient capital resources and information delivery systems</b>			<b>1.265</b>	<b>6.327</b>	<b>54.426</b>
Lack of enough capital resources	4.58±1.82	0.855			
Inadequate producers' awareness on cooperatives	4.30±1.35	0.757			
<b>Legal supports and insufficient profitability</b>			<b>1.206</b>	<b>6.032</b>	<b>60.458</b>
Insufficient efficiency of cooperatives	4.28±1.36	0.855			
Lack of legal supports on cooperatives	4.12±1.48	0.753			
<b>Dependency to government and distrust to the structure of cooperatives</b>			<b>1.068</b>	<b>5.341</b>	<b>65.799</b>
Suspicion of members on board of directors and inspectors	3.88±1.36	0.749			
Suspicion of members on financial affairs	3.97±1.30	0.662			
Dependency to the government	4.04±1.30	0.620			

portant instruments for empowerment of farmers and encouragement of their participation (Hansen and Henriksen, 2004).

Also, "unsuitable socio-cultural performance of existent cooperatives" and "prevention of governmental organizations to found cooperatives" and "reluctance of the producers to found cooperatives" were the other barriers that limit founding cooperatives to help walnut producers to success in their operations.

In Iran, although, there are many cooperatives in rural area, but, it is alleged that cooperative does not play a significant role in agricultural development in particular and rural development in general. Allahdadi and Aref (2011) revealed that there are some of the problems faced by agricultural production cooperatives in Iran which have been common among the majority

of the cooperatives such as, unclear and inadequate government policies on the development of agricultural cooperatives.

The second factor was called the "inadequate knowledge and incorrect opinions of producers and leaders". This factor that its eigenvalue was 2.597 explained 12.986% of the total variances of the variables. "Lack of confidence to the cooperatives", "inattention to the indigenous knowledge by managers", and "inadequate knowledge of the producers about cooperatives" were the most important barriers in the above-mentioned factor.

Directors of the cooperatives should share producers' indigenous knowledge and consider their ideas and opinions towards improving the cooperative activities (Mokhtari et al., 2012). Through using mass media such as radio and

TV educational programs, agricultural extension and education services in terms of importance, usefulness, aims and structure of the cooperatives, adequate knowledge and awareness should be delivered to the producers in order to enhance rate of their trust in cooperatives (Allahdadi and Aref, 2011; Prakash, 2002; Mokhtari *et al.*, 2012).

The third factor was called "inadequate laws and vulnerability". This factor that its eigenvalue was 1.755 explained 8.777% of the total variances of the variables.

The existence of clear and adequate government policies on the development of agricultural cooperatives, for example about cooperative management, inputs supply, marketing etc., can facilitate and enhance a better trades for producers and enabling them to access higher levels of income (Aref, 2011; Prakash, 2002).

The forth factor was called "infrastructural barriers". This factor that its eigenvalue was 1.465 explained 7.326% of the total variances of the variables. In this factor, "inadequate education of cooperative members" and "trend of cooperatives to jobbing and broking" are the mentioned barriers that prevent to develop and found walnut production cooperatives. Delivering needed information through proper trainings and extension-educational programs is an important factor to found and develop successful agricultural production cooperatives (Mokhtari *et al.*, 2012). In the rest factors, "lack of enough capital resources" is the most important barrier for the success to develop production cooperatives ( $M=4.58$ ). Lack of capital resources is one of the challenges of agricultural production cooperatives and one of the effective variables in the failure of these cooperatives in Iran (Allahdadi and Aref, 2011; Mokhtari *et al.*, 2012).

## CONCLUSION AND RECOMMENDATIONS

The cooperatives in Iran are considered as the most effective organizations in rural agriculture. Similarly, because of their vast network and reach, the rural cooperatives are considered as the best promoters for rural development (Aref and Sarjit, 2009). This study was intended to seek the perception of walnut producers on barriers affecting the success to found production

cooperatives in Tuyserkan Township. An important finding of the study was that many factors dealing with developing and founding cooperatives. Based on the findings of the present study cultural infrastructures such as "lack of producers' cultural capacity for group collaboration" and "inadequate knowledge and improper opinions of producers and leaders" were the most important factors contributing to develop production cooperatives.

The success of rural cooperatives is based on the ability of them to tackle with participatory and people-based approaches. So, it is concluded that government should strengthen legal framework of cooperatives and establish more effective people-based approaches to promote the cooperation among producers and their participation in the process of development of the country via cooperative proliferation.

Based on the opinion of the respondents as mentioned above, it is also recommended that responsible government ministries (cooperative and Jihad-e-agriculture) should make producers aware of the philosophy and capabilities of cooperation in order for drawing their participation through formal and informal educations, mass media, hold training courses for managers in the field of methods of participative management, deliver needed information through proper extension and educational programs, persuade them taking part in educational programs related to practical activities. Managers and directors of cooperatives should share and consider producers' indigenous knowledge and ideas for improvement of the cooperative activities.

It is concluded and recommended that cooperative ministry should support to establish new strong cooperatives through hold training courses for staff and members of cooperative companies existent in each city by educated agents who are representatives of these companies in province unions, organizing cooperatives in a frame of unions in order to improve institutional capacities of cooperative department, providing facilities and needed financial resources, consider as much as the presence of managers with abilities in management and planning in order to promote efficiency and effectiveness of cooperative ac-

tivities with altogether, make frequently agricultural production cooperatives aware of new regulations through cooperative department, and be sure that the regulations are related and coordinated with given terms on cooperatives.

Government in Iran should establish strong cooperative unions for barter, providing internal and external marketing materials, hold training courses in the field of marketing inputs and outputs for managing directors and board of directors to improve the cooperative performance (Mokhtari *et al.*, 2012).

Factors identified in this study that contribute to found and develop walnut production cooperatives will help leaders and producers to be successful to found effective production cooperatives in Tuyserkan Township. The other states in Iran can also consider and adopt similar strategies in a frame of a handout to those are to establish agricultural production cooperatives so that they are familiarized with barriers to found agricultural production cooperatives and they can make necessary predictions on explanation plan to be able to found their own specified cooperative companies.

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