

## **From Short to Longer Term Contracts: Factors Affecting Participation in Farmland Longer Rentals in Razan County, Iran**

H. Varmazyari<sup>1\*</sup>, F. Ansari<sup>1</sup>, A. Asadi<sup>1</sup>, and S. E. Tione<sup>2</sup>

### **ABSTRACT**

Although it has some benefits, short-term farmland rental transactions have had negative consequences such as excessive use of water, overuse of chemical fertilizers and pesticides, and farmland degradation. Why are landowners more engaged in short-term land rental contracts and less involved in longer rental contracts, that are more associated with incentives to invest and sustainably use farmland? Based on a post positivist worldview, the present study has chosen a quantitative approach and used a survey strategy to explore factors affecting the participation of landholders in longer farmland rental markets. Using multi-stage sampling, 250 landholders in Razan County who had rented their land, at least once in the past five years, were selected. The study indicated that the landholders' motivations to rent out their farmlands changed by their place of residence (rural/urban). The identified barriers and drivers that require policy attention broadly focus on the security of farmland property rights, competence of tenants and kinship contracts, high risk and profitability of farming activities, and capital constraints in rural areas.

**Keywords:** Farmland investments, Rental motivations, Tenants competencies.

### **INTRODUCTION**

Farmland plays a key role in sustaining the food supply systems, protection of livelihoods, and the provision of ecosystem services. Sustainably managing farmlands and maintaining their long-term productive potential are policy issues that are important for sustainable food supply systems across countries. This is of particular interest in countries with agricultural Small-scale, Complicated, Risk-prone, and Diverse (SCRD) systems, like Iran, which is a country in the arid and semi-arid climate zone, with limited arable land that was estimated at nine percent of the total available land in 2016 (World Bank, 2019). Land fragmentation and low productivity continue to affect access and sustainable use of farmland in Iran. This is in addition to the

increase in industrialization and urbanization rates that have led to changes in the employment structure and abandonment of farmlands in the rural areas.

Population projections in Iran show that the country would be one of the top 10 countries with the largest absolute declines in rural population by the year 2050 (United Nation, 2018). Keep (2009) stated that in the context of high urbanization and urban sprawl, in the suburbs, most farmers rely on income from the land rentals (cited in Yagi and Garrod, 2018). However, in Iran as in many other countries including Rwanda, Vietnam, China and India, land rental markets have been expanding, but the contracts and transactions have often been unwritten and short-term (Bizimana, 2011; Deininger *et al.*, 2008; Deininger *et al.*, 2007; Deininger, 2003; Gao *et al.*, 2012; Jin

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<sup>1</sup> Faculty of Agricultural Economics and Development, University Of Tehran, P. O. BOX: 4111, Karaj, Islamic Republic of Iran.

<sup>2</sup> School of Economics and Business, Norwegian University of Life Sciences, P. O. Box: 5003, 1432, Ås, Norway.

\* Corresponding author; e-mail: varmazyari@ut.ac.ir



and Jayne, 2013; Ricker-Gilbert, *et al.*, 2019; Van Le *et al.*, 2013).

While recognizing the advantages of these informal and short-term contracts, such contracts also come with irreparable damage to farmland. Short-term contracts are more associated with poor management of transferred irrigation technologies that lead to soil pollution and land degradation (Figure 1), excessive use of water, and overuse of chemical fertilizers and pesticides (Benin *et al.*, 2006; Daneshvar Kakhaki *et al.*, 2000). Such tenant activities can deteriorate soil structure and quality due to frequent tillage and intensive use of agrochemicals (Daneshvar Kakhaki *et al.*, 2000; Varmazyari *et al.*, 2019).

In contrast to the short-term contracts, longer land rental contracts can motivate investments and promote sustainable use of farmland (Benin *et al.*, 2006; Hurrelmann, 2002 cited in Marks-Bielska, 2013). Despite this, the extent to which landowners are willing to switch from short-term to longer rental contract has not been subject to much research in farmland rental market literature, especially for countries with SCRD systems like Iran. This could be partly because long-term contracts are also more associated with the high risk of losing farmland to tenants as evidenced by the land-to-the-tiller policy in Asia (Holden *et al.*, 2013; To *et al.*, 2019).

In developed countries, about 50 percent of the lands are rented out with advanced

contracts. However, renting out farmland is recently developing in other countries that were not widely known for trading land in the rental market like in Eastern Europe (Swinnen and Vranken, 2006). Two surveys in Bulgaria showed that the duration of a rental contract increased from one year in 1997 to about three years in 2004. At the same time, the number of formal contracts has also increased from 56 percent in 1997 to 82 percent in 2004 (Swinnen and Vranken, 2005). Evidence shows that the landowners who do not have enough financial capital or time to manage their farms, as well as the owners who are afraid of losing capital due to the risk of agricultural activities, prefer to manage their land under a rental contract (Bedrač *et al.*, 2019; Carter *et al.*, 1998 and 2002; Deininger *et al.*, 2003 and 2005; Faruquee and Carey 1997; Van Holst *et al.*, 2018).

The effects of land rental market transactions on simultaneously improving productivity and equity of agriculture can depend on several factors. According to the theory of ownership rights, the best use of resources depends on having full and exclusive property rights (Iwanek, 1992 cited in Marks-Bielska, 2013). Long-term land rental agreements and legally stable lease conditions improve farm efficiency and productivity compared to owner-cultivated farms (Marks-Bielska, 2013). With uncertain and unsecured land property



**Figure 1.** Disposed plastic mulch and drip irrigation tape materials residues on the farmland surface. (Own photo)

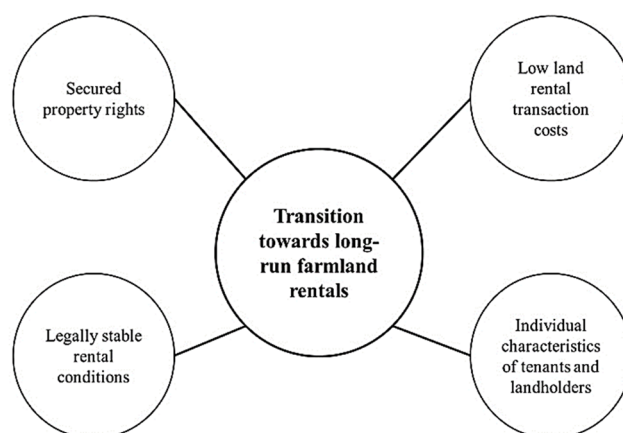
rights and probable land usurpation, the level of participation in the land rental markets is likely to be lower than the optimal level (Holden and Yohannes, 2002; Yang, 1997). This is particularly a challenge of areas with complex and insecure property and land use rights, like in Africa and partly in Eastern Europe, which is associated with a high risk of illegal expropriation, high land rental transaction costs and inefficient markets (Goldstein and Udry, 2008; Van Le *et al.* 2013). Therefore, having land ownership certificates and greater security of property rights can easily facilitate effective land rental transactions, reduce rental contract disagreement or conflicts and promote long-term investments in farmland (Besley, 1995; Ghebru and Holden, 2015; Hagos and Holden, 2013; Min *et al.*, 2017; Mceowen, 2009).

Previous studies have shown that landholders pay attention to some prerequisites and characteristics of tenants when they decide to rent out their land. Shetty (1988) revealed that landholders tend to rent out their land only under a fixed rent contract to tenants who are sufficiently wealthy to pay rent under all conditions. Evidence also shows that agreed contracts between relatives are typically shorter and more informal, while the contracts between formal organizations including private or government institutions are longer and more formal (Swinnen and Vranken, 2005). In China, for example, the land rented out to

relatives is often based on verbal and short-run contracts. Ma *et al.* (2015) indicated that such contracts are less likely to enhance productivity and equity gains because tenants are selected from a limited range of kin members that, consequently, hinders knowledge and innovation diffusion.

Feng's (2007) study in several provinces in China also indicated that the socioeconomic status and occupational characteristics of the landholders could affect land rental markets. Such factors include land size, amount of assets (wealth), household size, and the number of adult male and female members in the household. Feng (2007) further observed that age and educational level were inversely related to the tendency to rent out farmland while Min *et al.* (2017) found that a high proportion of aged members in a household increased the likelihood of renting out farmland in the southern mountainous region of China. In addition, Feng (2007) indicated that wealthier landholders preferred to rent out their farmland and migrate rather than to engage in farming activities. Such differences continue to present an empirical question across countries and regions. Overall, the literature shows that several factors can affect the farmland rental markets in different areas (Figure 2).

In summary, these include prerequisites for the formation of easy-to-trade transactions, such as efficient markets for production factors (land, labour, and



**Figure 2.** Important factors in transition of owners towards long-run farmland rentals.



capital); greater security of property and land use rights; and individual characteristics of tenants. The prerequisites also include landlords' knowledge of the tenant household characteristics, their financial ability to rent in farmland, and the legality of the land rental agreement. At the same time, individual characteristics of the landholder like skills and knowledge of non-farm economic activities, income, age and educational level are also important in determining who rents out their farmland.

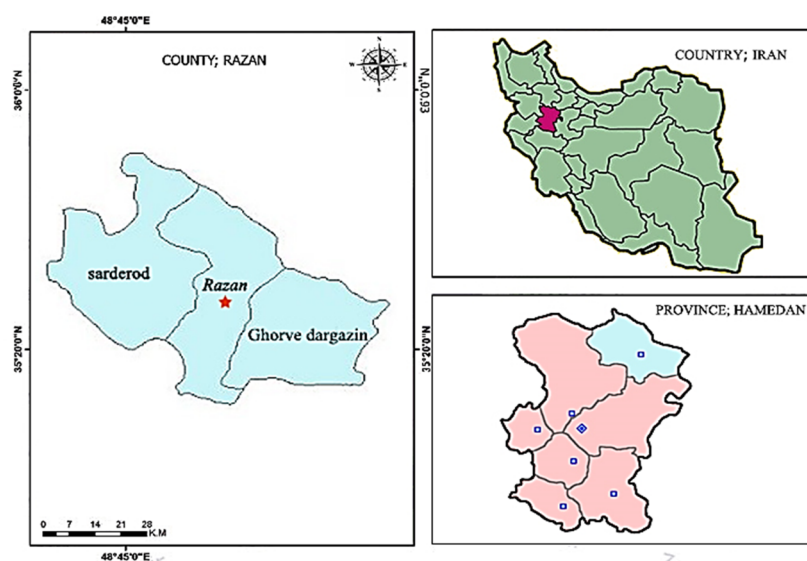
Building on this knowledge, this paper presents new empirical evidence on the perceived barriers and drivers of renting out farmland under long-term contracts that are more associated with sustainable use of farmland compared to short-term contracts that are more prevalent in most developing countries. According to the literature review, no study has explored landholders' preparedness to switch from short-term to longer land rental contracts in addition to the generally limited literature on landholders' participation in the land rental markets in most countries (Ricker-Gilbert, *et al.*, 2019).

The present study attempted to fill this knowledge gap by exploring the conditions in which the landholders of Razan County in Hamedan Province, Iran, accept participation in longer farmland rental

transactions (three years and more). In Razan County, short-term land rental contracts have been increasing and mostly under irrigation farming. The research questions are as follows: (1) What are the main motivations for landholders to rent out their farmland? and (2) What are the barriers and factors that affect their participation in longer farmland rental transactions? These questions try to identify landholders' motivations for renting out their farmland and explore the underlying barriers and factors explaining landholders' participation in longer farmland rental markets.

## MATERIALS AND METHODS

Based on a post positivist worldview, the present study has chosen a quantitative approach and used a survey strategy to explore factors affecting the participation of landholders in longer farmland rental markets. This study was conducted in Razan County in Hamadan Province that has a distinguished position in Iranian agricultural products, especially in the fields of walnuts, garlic, potatoes, grapes and raisins. This county also has the first rank in agricultural production and is located in the northeast of Hamadan Province (Figure 3).



**Figure 3.** The geographical position of Razan County.

Furthermore, farmland rental markets in Hamadan Province have been developing with more renting of land under short-term contracts. Prior to data collection, individual interviews were conducted with a small number of landholders and tenants to explore their attitudes and concerns regarding the longer land rental agreements and to refine questions for the survey questionnaire. This study used multi-stage sampling to identify landholders in Razan County who had rented out their land at least once in the past five years. At the first stage, all three districts of Razan were selected, comprising seven blocks. At the next stage, the villages of each block were categorized into three strata of less than 500, 500-1,499, and 1,500 residents and over. Then, one village was randomly selected from each stratum. Finally, random sampling was employed to select the landholders in each village. Ultimately, 250 households were surveyed from 28 villages.

The data were gathered using a questionnaire designed in four main sections, which were partly informed by prior discussions and interviews with a small number of landholders and tenants. The four sections covered included: (1) Past experiences of the landholders in farmland renting out and their willingness to accept longer rentals, (2) Investigating ten items that can influence landholders' motivations to rent out farmlands, (3) Perceptions of landholders regarding the barriers and drivers of longer farmland rentals, and (4) Sociodemographic characteristics. A total of 12 barriers and 17 drivers mainly identified from the discussed literature were included in the questionnaire and landholders ranked them using a Likert scale from 1 (least significant) to 10 (most significant). The questions focused on landholders to express how important they considered the barriers and drivers to be, in terms of their probable impact on the longer farmland rental market participation. In this study, the data was processed and statistically analyzed using IBM SPSS 25.

The descriptive and inferential statistics were employed to assess farm household experience in renting out farmland, to understand landholders' motivations, and to explore barriers and drivers of longer farmland rentals. To analyze the difference in motivations of respondents, the sample was grouped based on their place of residence (rural/urban). The differences in the motivations were investigated using non-parametric significance testing, Mann-Whitney *U*-test. Lastly, the study employed exploratory factor analysis to uncover barriers and drivers that might explain the underlying attitude of landholders on farmland rental market participation under longer contracts. This method is very useful when available data is not sufficient to use causal research techniques for analyzing these factors.

## RESULTS

From the results in Table 1, each landholder had on average seven years of experience in renting out farmland, with a minimum of one year and a maximum of 20 years. Nearly 47 percent of landholders rented out their land to tenants residing in their villages or neighbouring villages. Only 16.8 percent of landholders rented out the land to outsiders. In terms of the type of rental contract, 80.8 percent of the landholders had written contract and 19.2 percent of them had relied on a verbal agreement. Only 4 percent of landholders formally registered the rental contract.

On the contract period, Table 1 shows that about 32 percent of the respondents had extended the rental contracts for two or more years. On average, each landholder renewed the contract for 1.34 years with the same tenant, signifying the prevalence of short-term rental contracts. The findings on the form of rents payment showed that cash payments were an attractive option for 75.6 percent of landholders and only 6.4 percent had rent as a share of the products. In only six percent of cases did tenants invest in

**Table 1.** Characteristics of farmland rentals.

Variable	Frequency/Average
Preferred tenants	
Tenants residing in the same village or neighboring villages	118 (47.2%)
Acquaintances and friends	46 (18.4%)
Family members and relatives	44 (17.6%)
Non-natives	42 (16.8%)
Type of rental contract	
Written contract	202 (80.8%)
- has been signed merely between landholder and tenant	-148 (59.2%)
- has been registered in rural local Islamic council	- 44 (17.6%)
- has been registered in a notary public or real state agency	- 10 (4%)
Verbal agreement	48 (19.2%)
Extending the contract period for same tenant (Year)	
The contract has not been renewed	92 (36.8%)
1 year	77 (30.8%)
2 or more years	81 (32.4%)
Form of rents payment	
Cash payment	189 (75.6%)
As a share of products	16 (6.4%)
Investment	15 (6)
Combination of above mentioned forms	30 (12)
Willingness to longer rentals	
Yes	81 (32.4%)
No	97 (38.8%)
Maybe	72 (28.8%)
Experience in farmland renting out	7 years

rented farmland, in the form of installing a pressurized irrigation system, water piping, and land levelling, instead of just giving cash payment. Researchers also asked the landholders if they agreed or disagreed with renting out their farmland to a qualified person for three years or more, if a formal and fair contract was concluded and his (her) property rights were guaranteed. About 32 percent of them agreed with this statement and nearly 39 percent disagreed with longer rentals (Table 1).

### **Landholders' Motivations to Rent out Their Farmland**

Results in Table 2 show that the ranking of motivation factors differs among rural and urban landholders. From the table, the ratings given to the 10 suggested motivation factors by rural landholders showed that the variables of "high risk of agricultural production" and "low profitability of agricultural activity" had the lowest

Coefficient of Variation (CV). These two variables ranked first and second, exceeded all other variables in motivating rural landholders to rent out their farmland. At the same time, rural landholder had the lowest consensus on the role of "dwelling in urban areas" and "lack of enough time for land cultivation", respectively.

On the other hand, results in Table 2 show that urban landholders had the highest consensus on the role of "dwelling in urban areas" and "high risk of agricultural production" while having the lowest consensus on the role of "ageing" and "lack of enough capital for land cultivation".

In Table 3, the difference in motivation factors between rural and urban landholders has been depicted using Mann-Whitney test statistical measure. The results showed that out of the 10 ranked motivation factors, four factors were significantly different between the rural and urban landholders. Lack of enough capital for land cultivation and ageing played a greater role in motivating rural landholders than amongst urban

**Table 2.** Consensus of the landholders on the role of motivations.

Motivation	CV/Priority <sup>a</sup>	
	Rural landholders (n= 209)	Urban landholders (n= 41)
High risk of agricultural production	0.233 (1)	0.276 (2)
Low profitability of agricultural activity	0.328 (2)	0.374 (5)
Poor access to suitable agricultural inputs and equipment	0.350 (3)	0.346 (4)
Lack of enough capital for land cultivation	0.368 (4)	0.593 (9)
Gaining higher revenue	0.374 (5)	0.465 (8)
Poor agricultural market access	0.409 (6)	0.458 (7)
Inadequate household labour	0.440 (7)	0.378 (6)
Ageing	0.535 (8)	0.676 (10)
Lack of enough time for land cultivation	0.774 (9)	0.318 (3)
Residing in urban areas	0.785 (10)	0.062 (1)

<sup>a</sup> Numbers in parenthesis show the ranking of the motivation variables.

**Table 3.** Motivations of the landholders by their place of residence.

Motivations	Mean rank		U Mann Whitney	P value
	Rural landholders (n= 209)	Urban landholders (n= 41)		
Lack of enough capital for land cultivation	131.95	92.62	2936.5**	0.001
Gaining higher revenue	127.38	115.93	3892	0.394
Inadequate household labor	125.07	124.65	4249.5	0.972
Lack of enough time for land cultivation	113.94	184.44	1868**	0.000
Residing in urban areas	106.01	224.83	212**	0.000
Poor agricultural market access	127.79	113.83	3806	0.254
Aging	131.52	94.83	3027**	0.002
Low profitability of agricultural activity	128.03	112.61	3756	0.207
Poor access to suitable agricultural inputs and equipment	128.50	110.22	3658	0.135
High risk of agricultural production	127.54	115.10	3858	0.303

landholders. On the contrary, residing in urban areas and lack of enough time for land cultivation played a greater role in motivating urban landholders to rent out their land but not among rural landholders.

#### **Underlying Structure of Barriers and Factors Affecting Participation in Longer Farmland Rental Transactions**

To further understand the barriers of longer farmland rental transactions perceived by landholders, the suggested items were condensed into a smaller number of underlying dimensions using the Principal Component Analysis (PCA) method. Exploratory factor analysis using PCA and

Varimax rotation on 12 items revealed four dimensions. A rotated component matrix was generated to ensure that the analyzed items had reasonable correlations (greater than or equal to 0.50) with a dimension. The value of the Kiers-Meier Olkin index (KMO), which indicates the adequacy of sample size and is used to examine the partial correlation between variables, was calculated as 0.67. Therefore, it can be stated that the data are suitable for performing factor analysis. The analysis also included Bartlett's Test of Sphericity that examines the intercorrelations among variables for performing factor analysis. The results of Bartlett's Test presented in Table 4 show that there is sufficient evidence to reject the null hypothesis and, consequently,

**Table 4.** Exploratory factor analysis: Barriers hindering the participation of landholders in long-term farmland rental transactions. <sup>a</sup>

Factor	Item	Factor loading	Eigenvalue	% of variance explanation	Accumulated % of variance explained
Concerns over farmland property rights	Risk of losing lands	0.94	2.73	22.74	22.74
	Lack of reliable guarantees to protect landholder rights against possible infringements of tenants	0.87			
	Possibility of disturbing land boundary marks	0.79			
	Low landholders bargaining power when they negotiate for rent out	0.76			
Insufficient perceived tenant competence	Inadequate skills of tenants	0.76	1.69	14.07	36.81
	Low knowledge of tenants	0.72			
	Lack of adequate trust in the tenants' working conscience	0.65			
Concerns over degradation of production factors	Probable over-depreciation of equipment	0.78	1.58	13.20	50.01
	Probable over-extraction of irrigation water	0.68			
	Probable land degradation	0.63			
Uncertainty about growth of farm income	To be doubtful about the tenants' impact on growth of farm income	0.81	1.43	11.87	61.88
	A limited range of tenant choice	0.75			

<sup>a</sup> Note: Kaiser–Meyer–Olkin measure of sampling adequacy= 0.67,  $\chi^2 = 797.9$ , Bartlett's Test of Sphericity,  $P < 0.01$ .

factor analysis is appropriate to identify the structure of the factors. Using the criterion of factors having an eigenvalue greater than one, the four-dimension structure accounted for 61.88 percent of the variance of barriers affecting participation in longer farmland rental transactions (Table 4).

The first dimension of barriers in Table 4 is fundamentally related to the risk of losing lands, lack of reliable guarantees to protect landholder rights against possible infringements of tenants, the possibility of disturbing land boundary marks, and low landholders bargaining power. Thus, the first dimension was named “concerns over farmland property rights”. The second dimension, namely, “insufficient tenant competence” reflects the poor competencies of the tenants perceived by landholders. The third dimension, defined as “concerns over

degradation of production factors”, is associated with landholders’ concerns over excessive and unsustainable use of production factors including equipment, water and land resources by the tenants in the long-term. Finally, the fourth dimension relates to landholders’ skepticism and doubtfulness about tenant capabilities for increasing farm income in the long-term period. This dimension was labelled as “uncertainty about growth of farm income”.

Switching to identifying the drivers for the participation of landholders in long-term farmland rental markets, 17 items were analyzed using exploratory factor analysis. Three items that correlated weakly with others (with factor loadings smaller than 0.50) were excluded (De Vaus, 1996). The Principal Component Analysis and Varimax rotation resulted in five factors with



eigenvalues greater than one, which accounted for 62.52 percent of the variance as shown in Table 5. From the table, the first factor that explains the highest percentage of variance was labelled as “belief in tenants' competencies”. This factor relates to landholders' trust in tenants' competencies regarding their adequate knowledge about farm management, good reputation, and commitment to ethics. The second driving factor is “rent payment terms and farmland property rights”, constructed from assessing the timely payment of the rent, secured property rights, fixed-rent payment, and annual growth of the rent.

The third factor in Table 5 is “provision of the necessary guarantees” and reflects requirements assuring landholders that they would receive rent straightforwardly and timely, and tenants will uphold their contractual rights promptly. The fourth

factor is “official supervision of the contract”. This factor is related to landholders' preference for formalizing the farmland rental contracts and supervising proper formulation and implementation of the contracts. Finally, the fifth factor, labelled as “family ties”, is associated with the family ties and reflects landholders' preferences given to their relatives and friends. Building on these results, the next section presents a discussion and policy implications before concluding the paper.

## DISCUSSION

From the results, the current study found that the motivations of the landholders differed from one another according to their place of residence. This difference may contribute to the ongoing empirical discussions on the

**Table 5.** Exploratory factor analysis: Drivers for the participation of landholders in long-term farmland rental markets. <sup>a</sup>

Factor	Item	Factor loading	Eigenvalue	% of variance explanation	Accumulated % of variance explained
Belief in tenants' competencies	Adequate knowledge of tenant about farm management	0.94	2.85	20.35	20.35
	The good reputation of the tenant	0.92			
	The tenant's commitment to ethics	0.88			
Rent payment terms and farmland property rights	Timely payment of the rent by the tenant	0.81	1.87	13.36	33.71
	Secured property rights	0.60			
	Fixed-rent tenancies	0.56			
	Growth of the rent annually	0.51			
Provision of the necessary guarantees	Pledging collateral by the tenant	0.98	1.42	10.16	43.87
	Land use according to the plan approved by the Ministry of Agriculture Jihad	0.59			
	Tenant financial affordability	0.52			
Official supervision of the contract	Registering the rental contract in a real estate agency	0.82	1.35	9.46	53.33
	Supervision made by Ministry of Agriculture Jihad on proper formulation and implementation of the contract	0.48			
	Being relatives and friends of landholders	0.79			
Family ties	Possibility of employing workless family members or relatives in the farm activities	0.73	1.29	9.19	62.52

<sup>a</sup> Note: Kaiser–Meyer–Olkin measure of sampling adequacy= 0.69,  $\chi^2= 997.3$ , Bartlett's Test of Sphericity,  $P < 0.001$ .



effects of variables like age and assets on the likelihood of landholders' participation in farmland rental markets presented in previous studies. As noted in the literature review, there are inconsistent effects of socioeconomic factors like age, income and household assets on the likelihood of landholders participation in farmland rental transactions (Feng, 2007; Min *et al.*, 2017). To explain this inconsistency, the present study showed that ageing plays a major role in motivating rural landholders to rent out their farmland compared to urban landholders.

Feng (2007) and Le *et al.* (2013) showed that an increase in non-farm income and household assets increases the likelihood of landholder participating in the land rental markets. By grouping the households into rural and urban, results from this study concur with these studies on the income effect but only for urban landholders, while rural landholders are motivated by "lack of enough capital for land cultivation". Interestingly, urban landholders had the lowest consensus on the role of "ageing" and "lack of enough capital for land cultivation" in motivating themselves to rent out their farmland. The first contribution of this study was to explain the contradictory findings on the impacts of socioeconomic factors on participation in farmland rental transactions by unfolding the difference between urban and rural landholders.

Secondly, the present study provides evidence that both the rural and urban landholders similarly assign high priority to "high risk of agricultural production" and "poor access to suitable agricultural inputs and equipment" as motivations of renting out their farmland. These motivational factors may be attributed to the dominant type of farming systems in countries with SCRD systems, like Iran. This finding is in line with the results of Faruquee and Carey (1997); Carter *et al.* (1998 and 2002); Deininger *et al.* (2003 and 2005); Van Holst *et al.* (2018) and Bedrač *et al.* (2019).

Our research pointed out that only about 32 percent of the landholders agreed to participate in long-run land rental markets. This study also showed that the current rental contracts

were less likely to promote fundamental investments in the land, because only six percent of sampled tenants had invested in rented farmland instead of paying cash. In line with the findings of Ma *et al.* (2015), most of the studied landholders had preferred to rent out their farmland to relatives and acquaintances through informal and short-run contracts. These results imply that the choice of tenant is mostly limited to acquaintances and close family members, which in turn impedes the dissemination of new knowledge.

As unfolded by exploratory factor analysis, "concerns over farmland property rights" and "insufficient tenant competence" were, respectively, the most important dimensions of perceived barriers hindering the participation of landholders in long-run farmland rental transactions. Indeed, the fear of encroachment on property rights is the greatest concern and reason for avoiding longer farmland rental contracts. It is reasonable to have such concerns because this research showed that only 48.8 percent had formal land ownership document. Also, most of the rentals in Razan County had been short-run in that, on average, each landholder renewed the contract for 1.34 years with the same tenant. Furthermore, only four percent of landholders officially had registered the rental contracts. The third dimension of the barriers in this study, namely, "concerns over degradation of production factors" indicates that the landholders were concerned about the degradation of their land and misuse of the equipment over long-run rentals. This factor is consistent with the second factor, because when the landholder does not trust in the qualification and ethical behaviour of the tenant, he (she) will have serious concerns about the probable negative impacts of the tenants.

The exploratory factor analysis also revealed that five factors influenced the participation of landholders in long-run farmland rental markets. These include: (i) Belief in tenants' competencies, (ii) Rent payment terms and farmland property rights, (iii) Provision of the necessary guarantees, (iv) Official supervision of the contract, and (v) Family ties. These factors together explained 62.5 percent of the variance.

Among the enabling factors identified, “belief in tenants' competencies” and “rent payment terms and farmland property rights” were the strongest components. Regarding to the lack of formal guarantees and trusted tenants, the landholders have reasonably made the acceptance of long-term contracts subject to reliable guarantees and government-approved utilization plans (the third factor). A similar conclusion was reached by Shetty (1988) in that landholders prefer wealthier tenants to make sure they received rent under all conditions. Also, Marks-Bielska (2013) has emphasized on legally stable lease conditions.

The explored importance of family ties is inconsistent with the results of Swinnen and Vranken (2005), who indicated that contracts concluded between the relatives were usually short-term and informal. On the contrary, our results revealed that the existence of family ties between landholder and tenant can facilitate establishing long-run farmland rental contracts. However, according to Ma *et al.* (2015), limiting the range of tenants to friends can impede the dissemination of new knowledge.

## CONCLUSIONS

The analysis in this paper has not only allowed researchers to obtain detailed information about motivations for landholders to rent out their farmland but also to attain new and direct insights into attitudes of the landholders about long-run farmland rental markets.

These variations in motivation factors across landholders suggest the need to pay attention to the characteristics of landholders as the moderator variables. With this knowledge, future research can consider the use of variables such as place of residence (rural/urban), as the moderator variables in structural causal models that could predict the behaviour of landholders in entering farmland rental markets, particularly for long-run contracts. In such a circumstance, where high risk of agricultural production and poor access to suitable agricultural inputs or equipment lead the owners to rent out their farmlands, policymakers could promote efficient production in the farmlands via developing

and promoting long-run farmland rental markets.

Despite the discussed circumstances and opportunity, landholders were concerned about protecting their rights. And they have not enough confidence in the tenants' effectiveness to improve the long-term productivity of the farmland. Therefore, policymakers need to deal with landlords' fears and worries about the consequences of renting out their land to outsiders. The revealed barriers and factors in this study suggested that, in the context of agricultural SCRD systems, the policymakers should handle the concerns of landholders and create an enabling environment for the farmland rental markets. In this regard, the government can provide the necessary guarantees to gain landholders' trust in the protection of their property rights and the quality of the rented farmland.

Finally, according to the study results, the following policy recommendations can be suggested:

Providing landholders with a formal document or certificate of ownership to enhance their confidence in property rights protection in long-run land rentals,

Supervising tenants' practices in long-run rentals by the staff of the Ministry of Agriculture Jihad and related departments or by a qualified third party,

Utilizing farmland according to the plan approved by the Ministry of Agriculture Jihad or any other accredited entity,

Requiring tenants to pledge reliable collateral to protect the rights of landlords against possible violations by tenants,

Establishing a user-friendly mechanism to identify, introduce and rate the tenants regarding their performance and adherence to their commitments.

## ACKNOWLEDGEMENTS

The authors wish to express their deepest gratitude and warmest appreciation to Dr. Jacob E. Ricker-Gilbert for his valuable comments and suggestions.



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### از قراردادهای کوتاهمدت به قراردادهای بلندمدت تر: عوامل مؤثر بر مشارکت در اجاره‌های بلندمدت تر در شهرستان رزن، ایران

ح. ورمزیاری، ف. انصاری، ع. اسدی، و س. ا. تیون

#### چکیده

اجاره کوتاهمدت اراضی کشاورزی، با وجود برخی منافع، پیامدهای منفی از جمله، استفاده بی‌رویه از آب، آفتکش‌ها و کودهای شیمیایی و در نتیجه تخریب اراضی به دنبال داشته است. چرا مالکان اراضی کشاورزی، عمدتاً در قالب قراردادهای اجاره کوتاهمدت، اراضی خود را اجاره می‌دهند و قراردادهای بلندمدت تر رواج چندانی ندارد؛ با وجود اینکه قراردادهای بلندمدت تر، سبب تشویق به سرمایه‌گذاری بیشتر و استفاده پایدارتر از اراضی کشاورزی می‌شود. تحقیق حاضر بر اساس جهان‌بینی پسااثبات‌گرایی، رهیافت کمی و راهبرد پیمایشی را به منظور واکاوی عوامل مؤثر بر مشارکت مالکان اراضی کشاورزی در بازارهای اجاره بلندمدت تر اتخاذ کرده است. با استفاده از نمونه‌گیری چندمرحله‌ای، ۲۵۰ نفر از بین مالکان اراضی کشاورزی شهرستان رزن که در پنج سال گذشته حداقل یکبار زمین خود را اجاره داده بودند، انتخاب شد. این مطالعه نشان داد انگیزه‌های مالکان در اجاره اراضی خود با توجه به محل سکونت (شهر/روستا) متفاوت است. موانع و عوامل پیشران شناسایی شده که نیازمند توجه در سیاست‌گذاری هستند، عمدتاً بر موضوعات امنیت حقوق مالکیت اراضی کشاورزی، صلاحیت اجاره‌کاران و روابط خویشاوندی با اجاره‌کاران، ریسک بالا و میزان سوددهی فعالیت‌های کشاورزی و محدودیت سرمایه در نواحی روستایی متمرکز هستند.