Farm Household Differentiation, Willingness to Enter the Market with Collective Management Construction Land and Choice Preference — Based on 1030 Farm Household Questionnaires in Jiangsu Province

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Abstract: In order to achieve the efficiency of rural land resources, the new version of Land Management Law encourages the conversion of rural-homestead into rural collective commercial land and enter the market on the premise of farmers' willingness. This paper used the investigation data from 1030 rural-households in 13 prefectural-level cities in Jiangsu Province, and analyzed the influencing factors of farmers' willingness to enter the rural collective commercial construction land market and choice preference from the perspective of rural-household differentiation by constructing the binary logistic model. The results indicate that the overall willingness of farmers to enter the market is high, and respondents with higher level of differentiation still have reservations about withdrawing from the homestead. Finally, policy implications are discussed based on the results of the study.

Keywords: collective commercial construction land (CCCL), marketization of CCCL, farmers' willingness

1. Introduction

With the development of urbanization, China's rural areas have undergone a series of profound changes, and the phenomenon of rural-household differentiation has become increasingly prominent in recent years. In order to make full use of idle land in rural areas and resolve the contradiction between the supply and demand of construction land in China, the new version of Land Management Law of 2020 allows rural collectively commercial construction land to enter the market. At present, there are few papers on the willingness of farm households to enter the market for collective commercial construction land from the perspective of rural-household differentiation. Regarding the research on the differentiation of farm households, scholars have studied from the aspects of economy and social relations, specifically including the differentiation from labor ability[1][2], occupational differentiation[3][4] and perception of citizenization[5] and other different aspects to explore the influencing factors of farmers' land transfer behavior. Meanwhile, the research on the influencing factors of farmers' willingness to enter the market is mostly based on the survey data of a single region, and it shows that the willingness of farmers to participate in the market is influenced by the objective factors, such as farmers' own characteristics, local economic factors, public policy factors, and so on.[6] Based on the reality of rural-household differentiation, scholars mainly study the willingness of farmers to transfer residential land. There is a lack of study about farmers' collective management of construction land into the market willingness, while the relevant research on the willingness of farmers to enter the market has the limitations of the survey sample. Therefore, this paper has certain theoretical and practical significance from the perspective of farm household differentiation, based on the questionnaire survey data of 13 cities in Jiangsu Province to carry out the research on the preference of farm households to enter the rural collective commercial construction land market.

2. Data sources and research design

2.1 Data sources

The data used in this paper comes from the questionnaire survey data, the research group in July-August 2023 in 13 cities in Jiangsu Province to carry out "collective management of construction land into the market willingness" related to research, a total of 1,125 questionnaires were issued, excluding the filling of information is incomplete or fill in the information after the error of a total of 1,030 recovered, the questionnaire effective rate of 91.56%, the questionnaires are not available. The validity rate of the questionnaire was 91.56%. The content of the survey included the basic information of the farmers, the characteristics of their families, and their knowledge and preference of the policy of entering the market with collectively operated construction land.

2.2 Research design

In the selection of indicators, we divide the factors which influence the rutal household differentiation when participating in marketization of collective commercial construction land into two aspects: individual characteristics and household characteristics. Individual characteristics include: gender, age, education level, whether they are farmers or not, and whether they are village cadres or not. Household characteristics include: the size of the household's agricultural land, the household's per capita income, and the number of farmers in the household.

3. Empirical results and analysis

3.1 Multicollinearity test

To ensure the reliability and precision of the model, it is imperative to conduct a thorough examination of the multicollinearity among the independent variables prior to performing Logistic analysis. Upon analysis, the variance inflation factor (VIF value) among the eight independent variables reveals a value close to 1, indicating the absence of multicollinearity among these variables. This ensures that the model's performance will not be hindered by any redundant or overlapping information, thereby ensuring a more accurate and dependable analysis.

3.2 Logistic model regression results and analysis

To examine the influence of farm household differentiation, particularly in terms of varying personal and family characteristics, on their participation in the market for collectively managed construction land, this study considers various entry methods. Binary logistic regression analysis was conducted using SPSS26.0 software.

In this paper, the Hosmer-Lemeshow goodness-of-fit test was chosen for determining the goodness-of-fit of the models. The p-values of both models are greater than 0.05, indicating that they pass the HL test and are suitable for logistic regression analysis.

Table 1. Variable Definitions and Assignments

Variant	Indicator name	Variable Definition
individual characteristics	Gender(x1)	0=Male; 1=Female
	Age(x2)	none
	Educational attainment(x3)	1=Elementary school and below, 2=Middle school,3=High school/technical secondary school, 4=Undergraduate college/junior college
	Whether purely agricultural(x4)	0 = Non-pure farmer; 1 = Pure farmer
	Whether village cadres(x5)	0 = Non-village cadres; 1 = Village cadres
Family characteristics	Household agricultural land area(x6)	none
	Per capita household income	1 = less than ¥40,000, 2 = ¥40,000-¥80,000, 3 = ¥80,000-¥120,000, 4 = ¥120,000-¥160,000, 5 = more than ¥160,000
	Number of pure family farmers (x8)	none
Willingness to bring land to the market	Willingness to stock into the market(y1)	0=No; 1=Yes
	Willingness to withdraw from the homestead and enter the market (y2)	0=No; 1=Yes

Model 1 reveals that age, education level, farming status, family farmland size, and per capita household income significantly impact farmers' willingness to enter the market with their stocks. Specifically, older farmers, those with larger farmland holdings, and those who solely rely on farming are more inclined to opt for "stock to market" transactions. For every additional unit of farmland area, farmers' propensity to enter the market via stocks increases by 0.3%. Pure farmers, compared to those with diversified income sources, exhibit a 53% higher likelihood of choosing this market entry method. Furthermore, farmers' willingness to enter the market with stocks rises as their education level increases. For instance, farmers with a high school education have a 6.7% higher chance of doing so compared to Elementary school education. Additionally, farmers with a per capita household income ranging from 40,000 to 80,000 and those earning 120,000 or more are more likely to opt for market entry through stocks. This may be attributed to the fact that a larger capital base confers greater control over external affairs, thereby enhancing farmers' willingness to engage in market transactions.

Model 2 shows that, on the one hand, farmers who are village cadres and have a larger number of pure farmers in

their families are more willing to "withdraw their homesteads from the market". Compared with those who are not village cadres, those who are village cadres are more willing to "withdraw from the market", and the incidence of willingness is 9.6% higher; the willingness to "withdraw from the market" increases by 6.4% for each additional person in the family who is a pure farmer. Therefore, the willingness of farmers with 5 pure farmers in their family to "withdraw the homestead land and enter the market" is 32% higher than that of farmers with no pure farmers in their family. On the other hand, education level, whether or not they are pure farmers, and per capita household income have a negative impact on the willingness to "withdraw homestead land and enter the market". Pure farmers with higher education levels and higher per capita household incomes are more reluctant to "withdraw their homesteads from the market".

Table 2. Binary Logistic Regression Results

Variant	Model 1		Model 2	
	Coefficient B	Exp(B)	Coefficient B	Exp(B)
Gender(x1)	0.040	0.821	-0.197	1.041
Age(x2)	0.016**	0.998	-0.012	1.016
Educational attainment (x3)	0		0	
middle school	0.23	0.765	-0.268	1.258
High school/technical secondary school	0.836***	0.767	-0.265	2.308
Undergraduate college/junior college	1.026***	0.242	-1.418***	2.790
Whether pure farmer(x4)	0.511***	0.530	-0.634***	1.666
Whether village cadres (x5)	0.092	1.99	0.689**	1.096
Household agricultural land area(x5)	0.003**	1.003	0.003	1.003
Per capita household income(x7)	0		0	
¥40-¥80,000	0.362**	0.865	-0.145	1.436
¥80-¥120,000	0.232	1.159	0.148	1.262
¥120,000-¥160,000	0.658**	0.463	-0.771**	1.930
More than ¥160,000	1.555***	0.061	-2.798***	4.735
Number of pure family farmers(x8)	0.062	1.282	0.248***	1.064

Note: * represents $p<0.05$, ** represents $p<0.01$, *** represents $p<0.001$.

4. Conclusions and policy implications

The paper analyzes the cognition, willingness and choice preference of farmers in Jiangsu Province on entering the collective commercial construction land market, and summarizes the influencing factors of farmers' choice of entering the market by constructing a Logistic model. Based on the previous analysis, the following policy insights can be obtained:

(1) Although the policy of collective commercial construction land market has been popularized nationwide, nearly half of the farmers do not know much about it, and the lack of publicity on the policy may lead to the failure to fully realize the property rights of the farmers.

(2) Rural-household differentiation in China is increasingly obvious, farm households who have the stronger economic strength and more closely linked to the town are still conservative to exit rural residential land, so the way of making full use of idle rural residential land still need to be explored by the local government to diversify the way of transferring residential land.

(3) At present, the overall willingness of farmer households to enter the market is high, and it is necessary to introduce corresponding revenue distribution policies to properly address the demands of farmers on revenue distribution to promote the market, and to realize the objectives both of improving the efficiency of using idle rural land resources and increasing the property income of farmers.

Acknowledgments

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