ISSN 2616-5902 Vol. 4, Issue 8: 111-119, DOI: 10.25236/AJBM.2022.040817

An empirical study on the impact of Internet technology on demand credit constraints of farmers with different income types

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Abstract: *Based on the classification of farmers' income level, this paper empirically analyzes the impact mechanism of Internet technology on demand-based credit constraints of farmers with different income by using probit and multivariate ordered logit model. The study found that Internet technology alleviates farmers' demand-based credit constraints by alleviating farmers' transaction cost constraints, information bias constraints, cognitive bias constraints and credit risk constraints. Among them, Internet technology plays a more significant role in alleviating transaction cost constraints for middle-income farmers, cognitive bias constraints for low-income farmers, and information bias constraints and credit risk constraints for farmers with different income levels.*

Keywords: *Different income, Peasant household, Credit constraints, Demand type, Probit, Multivariate ordered logit, Internet technology*

1. Introduction

Due to a series of problems such as moral hazard and adverse selection caused by information asymmetry in the credit market, many farmers are excluded from the financial market, resulting in insufficient motivation to increase farmers' income [1]. Although the state has issued many measures to reform the rural financial market and achieved some results, the credit constraints faced by farmers have not been effectively alleviated. With the continuous development of Internet technology and the continuous improvement of Internet penetration in rural areas, it provides a new idea to solve the problem of farmers facing difficult loans and unwilling to lend money [2].

Demand based credit constraint is one of the formal credit constraints (CS). Wang believe that demand-based credit constraints are mainly composed of transaction cost constraints, information deviation constraints, cognitive deviation constraints and credit risk constraints [3]. Due to the information asymmetry between the supplier and the demander of funds, the demander of funds has a wrong estimation of the loan difficulty of formal financial institutions, resulting in demand-based credit constraints. The adoption of Internet technology plays a very important role in alleviating the information asymmetry in the rural credit market.

At present, the existing studies have a relatively complete understanding and identification mechanism for the credit constraints of banks and other financial institutions. They believe that the adoption of the Internet can alleviate the credit constraints between farmers and financial institutions, but the analysis of the impact mechanism of the adoption of Internet technology on Farmers' credit constraints of different income types is relatively lacking [4]. This paper will take demand-based credit constraints as the main research object to explore the impact mechanism of the adoption of Internet technology on demand-based credit constraints of farmers with different income types. In this paper, the intensity of demand-based credit constraints is set as a continuous variable between 0 and 1. Therefore, probit model is selected to empirically analyze the influencing factors of demand-based credit constraints, and to explore the impact of the adoption of Internet technology on the intermediary indicators of Internet information effect, ordered logit model is selected for empirical analysis.

2. Data source and variable selection and setting

The sample areas selected in this study are located in Yangling District of Xianyang City, Guanzhong District, Shaanxi Province, Fufeng County of Baoji City, Liquan County, Zhouzhi County of Xi'an city

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and other areas. Shaanxi Province is a province with relatively good economic development in the western region, while Guanzhong area is a county economic area with relatively good development conditions in Shaanxi Province. Since the implementation of the western economic development, the finance in Guanzhong rural area of Shaanxi Province has developed rapidly, but the level of rural economic development is relatively backward compared with other parts of the country, the gap between the rich and the poor is relatively large, and there is a phenomenon of credit constraints. Therefore, we choose Guanzhong area of Shaanxi Province as a sample area to study the demand-based credit constraints of farmers with different income levels, which is more reasonable and representative.

In order to make the sample reasonable and random, during the survey, villages were selected from each township in different areas for household survey. The investigators communicated face-to-face with the respondents, and the investigators filled in the questionnaire to ensure the quality of the questionnaire. A total of 561 questionnaires were sent out in this survey, of which 517 valid questionnaires were recovered.

2.1. Variable selection and setting

It focuses on the impact of demand-based credit constraints on farmers with different incomes. Therefore, the selection and setting of variables are based on the classification of farmers with different income levels (Table 1).

Table 1: Classification of farmers with different income levels

Per capita monthly income (yuan)	Grade
1000-2500	Rural low-income group
2500-4000	Rural middle-income group
>4000	Rural higher income group

A. Influencing variables of demand-based credit constraints

(1) Basic family situation and economic characteristic variables

The influence of the age of the head of household on the demand-based credit constraint may be U-shaped. In the young and middle-aged, under the influence of the needs of daily production and business activities and family economic pressure, the demand-based credit constraint is the smallest. The education level of the head of household affects the judgment of the family on the credit relationship. The greater the education level, the smaller the demand-based credit constraint may be. The health status of the head of household affects the family's confidence in production and business activities and in obtaining credit. The better the health status of the head of household, the smaller the demand-based credit constraints may be. The annual per capita income and income level of families may affect the confidence of family production and operation and credit access. The higher the annual per capita income of families, the smaller the demand-based credit constraints may be. The holding of the original value of fixed assets may make farmers have mortgage and other information, so as to reduce the impact of demand-based credit constraints. Engaging in self-employed activities may affect farmers' capital needs and financial literacy.

(2) Internet information effect variable

The Internet affects demand-based credit constraints by affecting transaction costs, information bias, cognitive bias and credit risk, and takes transaction costs, information bias, cognitive bias and credit risk as intermediary variables. Transaction cost constraints. Due to the cumbersome procedures and long approval time of financial institutions, the transaction cost of signing credit contracts is high, which makes some farmers give up the loans of formal institutions, resulting in demand-based credit constraints. Information bias constraint: due to the information asymmetry between the borrower and financial institutions such as banks, the borrower does not have enough understanding of bank loan policies, resulting in information bias. Even if there is capital demand, he gives up the loan of formal financial institutions. Cognitive bias constraints, due to the imperfection of credit rationing itself, lead to the lender's wrong understanding of information, improve the perceived difficulty of borrowing, and produce cognitive bias, resulting in the impact of demand-based credit constraints. Credit risk constraints, due to the impact of information asymmetry, more contract risks are on the borrower. In order to avoid risks, the borrower voluntarily withdrew from the credit market, resulting in demand-based credit constraints.

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(3) Demand type credit constraint variable

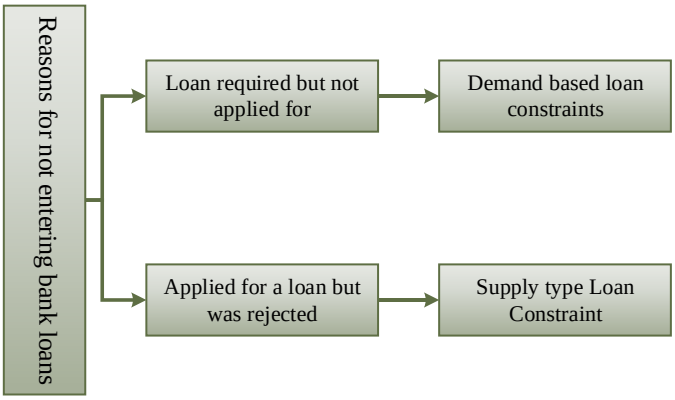

Figure 1: Demand based credit constraint variables

B. Internet technology adoption variables (Table 2)

Internet technology adoption is divided into three levels: Farmers' understanding of Internet financial products, farmers' acceptance of Internet Finance and the use time of network communication equipment. Among them, in terms of understanding and acceptance of Internet financial products, it is divided into four types of Internet financial business, Internet banking, Internet lending, third-party payment and Internet insurance, The adoption of Internet technology can play a role through information effect, which is embodied in reducing transaction costs, overcoming information bias, reducing cognitive bias and weakening credit risk, thus affecting farmers' demand-based credit constraints.

3. An empirical analysis of the impact of Internet technology on Farmers' credit constraints at different income levels

3.1. Model building

A. An empirical model of the impact of farmers' demand-based credit constraints

In order to investigate the influencing factors of farmers' demand-based credit constraints at different income levels and explore the impact of intermediary index transaction cost constraints, information deviation constraints, cognitive deviation constraints and credit risk constraints on Farmers' demand-based credit constraints at different income levels, this paper sets the intensity of demand-based credit constraints as a continuous variable between 0 and 1. Therefore, probit model is selected to make an empirical analysis on the impact of farmers' demand-based credit constraints [5].

$$Prob(Y = 1) = Prob(Y^* > 0) = \emptyset(\beta_0 + \beta_1 + \beta_2 Internet) \quad (1)$$

Where, *Y* represents the demand-based credit constraints faced by farmers with different incomes. Internet measures the reduction of transaction cost, mitigation of information deviation, improvement of cognitive deviation and reduction of credit risk constraints caused by farmers' Internet information effect. *X* represents the control variables at the level of basic family situation and economic characteristics.

B. An empirical model of the impact of Internet technology use on Internet information effect

The intensity of transaction cost constraints, information bias constraints, cognitive bias constraints and credit risk constraints faced by farmers is set as a discrete value of 1-5. Therefore, a multivariate ordered logit model is selected to empirically analyze the Internet information effect caused by the use of Internet technology [6].

$$log_{it}(p_{ij}) = \ln\left(\frac{p_{ij}}{1-p_{ij}}\right) = \alpha_{ij} + \alpha_{i1}X_1 + \alpha_{i2}X_1 + \alpha_{13}X_3 \quad (2)$$

Where, p_{ij} is the explained variable, which has five grades: 1, 2, 3, 4 and 5. p_{1j} is the transaction cost constraint of farmers. p_{2j} is the information deviation constraint of farmers. p_{3j} is the cognitive deviation constraint of farmers, and p_{4j} is the credit risk constraint of farmers. a_{ij} is a constant term. X_1 represents farmers' understanding of Internet financial products. X_2 represents farmers' acceptance of Internet finance, and X_3 represents the length of time farmers use network communication equipment. Probability of Internet information effect:

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$$p_{ij} = \frac{\exp(\alpha_{ij}+\alpha_{i1}X_1+\alpha_{i2}X_2+\alpha_{i3}X_3)}{1+\exp(\alpha_{ij}+\alpha_{i1}X_1+\alpha_{i2}X_2+\alpha_{i3}X_3)} \quad (3)$$

3.2. And estimation results

According to the data collected from the survey, eviews11 software is used for regression analysis (Table 3) .

From the analysis of the basic situation and economic characteristics of the family, the older the head of household is, the higher the education level of the head of household is, the better the physical condition of the head of household is, the higher the annual per capita income of the family is, and the greater the original value of household fixed assets is, the less the impact of demand-based credit constraints on farmers is. The above results are consistent with the analysis results before the survey.

From the analysis of Internet information effect, the greater the value of transaction cost constraint, information deviation constraint, cognitive deviation constraint and credit risk constraint, the smaller the corresponding Internet information effect constraint. Therefore, it can be found that transaction cost constraints, information bias constraints, cognitive bias constraints, credit risk constraints and farmers' demand-based credit constraints have a positive change relationship, which is consistent with the analysis results before the survey.

Table 2: Regression results of demand based credit constraint model

Explanatory variable	Demand based credit constraints	
	coefficient	Standard error
Age of head of household	-0.007738	0.008152
Education level of head of household	-0.158189	0.076510
Health status of head of household	-0.111933	0.082186
Logarithm of annual per capita household income	-0.507193	0.178409
Transaction cost constraints	-0.053644	0.076068
Information deviation constraint	-0.274880	0.076728
Cognitive bias constraint	-0.193100	0.086280
Credit risk constraints	-0.043221	0.066849
Number of samples	517	
McFadden R-squared	0.321423	
Log likelihood	-206.6416	
LR statistic	45.76007	

According to the data collected in the survey, spss25 software is used to regress the impact model of Internet use on transaction cost constraint, information deviation constraint, transaction deviation constraint and credit risk constraint [7].

It can be seen from Table 4 that the use time of network communication equipment, Internet financial management, Internet lending, third-party payment and Internet insurance will alleviate the transaction cost constraints of different income farmers to a certain extent. Among them, the use of Internet has a more obvious effect on the transaction cost constraints of middle-income farmers. The reason is that for low-income farmers, even if the adoption of Internet technology alleviates the information asymmetry between farmers and financial institutions such as banks, low-income farmers have less tolerance for transaction costs. Even if they know the loan process and transaction costs of financial institutions such as banks, they still think that the transaction costs are high and beyond their own tolerance. For middle-income farmers, the adoption of Internet technology enables these groups to fully understand the loan information of banks and other financial institutions, so as to enhance their confidence in obtaining loans, and they can bear the actual transaction cost of loans from banks and other financial institutions. For high-income groups, their ability to bear transaction costs is relatively strong, and there are relatively few demand-based credit constraints caused by transaction cost constraints. Therefore, the adoption of Internet technology has less effect on alleviating the transaction cost constraints of high-income farmers than that of middle-income farmers.

It can be seen from Table 5 that the use time of network communication equipment, Internet financial management, Internet lending, third-party payment and Internet insurance will all have an impact on Farmers' information deviation constraints, and the impact on different income groups is not different. The use of the Internet has broadened the way for farmers to master information, alleviated the information asymmetry between farmers and financial institutions such as banks, reduced the deviation of farmers from the loan information of financial institutions such as banks, and alleviated the impact of demand-based credit constraints to a certain extent.

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It can be seen from Table 6 that the adoption of Internet technology has a positive effect on alleviating the cognitive bias constraints of farmers, but the impact on different income groups is heterogeneous. The adoption of the Internet has an obvious mitigation effect on the cognitive bias constraints of low-income groups, followed by middle-income groups, and the mitigation effect on the cognitive bias of high-income groups is the least. Based on the results of the model, this paper believes that due to the relatively low education and financial literacy of low-income people compared with middle and high-income people, their cognitive ability is relatively limited, and the use of Internet technology can make the information spread in a more concise and clear way, making the low-income farmers' understanding of loan policies, processes and other information more accurate. For middle and high-income farmers, the adoption of Internet technology can reduce the impact of cognitive bias constraints on them. However, due to the high cognitive level of middle and high-income farmers, the Internet has less room to improve their cognitive ability, so it has less impact on their cognitive bias constraints.

It can be seen from the results in Table 7 that Internet use has a positive impact on the credit risk constraints of farmers with different income types, but the impact on farmers with different income levels is not different. It can be considered that the adoption of Internet technology has no heterogeneity in the mitigation of credit risk of farmers with different income. Credit risk constraint is because the borrower receives the influence of information asymmetry and believes that more contract risks are on the borrower. In order to avoid risks, the borrower is unwilling to lend even if it meets the loan conditions. The adoption of Internet technology can alleviate the information asymmetry between banks and other financial institutions and borrowers, and borrowers can have a more correct understanding of loan contracts, so as to reduce the exclusion of borrowers from loans from banks and other financial institutions, so as to alleviate the demand-based credit constraints.

4. Conclusion

The basic situation and economic characteristics of farmers' families, transaction cost constraints, information deviation constraints, cognitive deviation constraints and credit risk constraints will all affect farmers' demand-based credit constraints. This paper mainly believes that transaction cost constraints, information deviation constraints, cognitive deviation constraints and credit risk constraints have a reverse effect on Farmers' demand-based credit constraints.

This paper mainly discusses the impact of the adoption of Internet technology on the demand-based credit constraints of different income types of farmers. This paper believes that the adoption of Internet technology has played a certain role in alleviating the demand-based credit constraints of farmers at all income levels. Among them, in terms of transaction cost constraints, the adoption of Internet technology has a more obvious role in alleviating the demand-based credit constraints of middle-income farmers, and for cognitive bias, The adoption of Internet technology has a more significant mitigation effect on low-income farmers. It is considered that the adoption of Internet technology has no heterogeneity for the mitigation of information deviation constraints and credit risk constraints of farmers with different income levels.

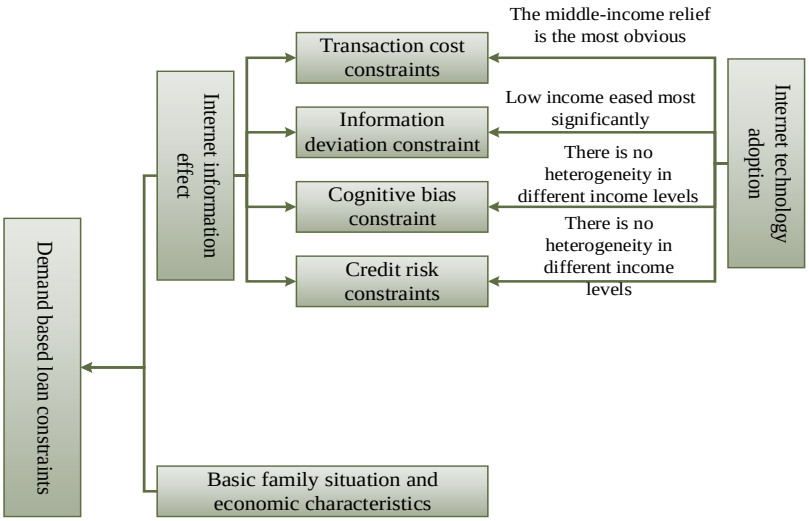

Figure 2: Research results

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Table 3: Variable setting and description of influencing factors of demand-based credit constraints

Variable	Variable name	Description and assignment	Mean value	Standard deviation	Minimum	Maximum
Credit constraints	Demand based credit constraints	0 = unconstrained; 1 = constrained	0.17	0.378	0	1
Basic family situation and economic characteristics	Age of head of household	Actual age of head of household (years)	50.5	10.961	21	74
	Education level of head of household	1 = not enrolled; 2 = primary school; 3 = junior high school; 4 = high school and technical secondary school; 5 = junior college; 6 = University and above	3.03	1.173	1	6
	Health status of head of household	1 = very poor; 2 = poor; 3 = General; 3 = General; 4 = relatively healthy; 5 = healthy	3.84	0.978	1	5
	Logarithm of annual per capita household income	Including agricultural, non-agricultural, wage and property income	4.45	0.213	3.88	5.65
	Logarithm of original value of fixed assets	Including the total value of fixed assets such as houses and vehicles	5.15	0.367	3.9	5.95
	Whether engaged in self-employed business	0 = not engaged in self-employed business; 1 = self employed	0.18	0.383	0	1
Internet information effect	Transaction cost constraints	1 = high transaction cost; 2 = high transaction cost; 3 = average transaction cost; 4 = low transaction cost; 5 = low transaction cost	3.16	1.156	1	5
	Information deviation constraint	1 = large information deviation; 2 = large information deviation;3 = general information deviation; 4 = small information deviation; 5 = small information deviation	3.21	1.16	1	5
	Cognitive bias constraint	1 = large cognitive deviation; 2 = large cognitive deviation; 3 = general cognitive deviation; 4 = small cognitive deviation; 5 = small cognitive deviation	3.11	1.201	1	5
	Credit risk constraints	1 = high credit risk; 2 = high credit risk; 3 = average credit risk; 4 = low credit risk; 5 = small credit risk deviation	3.07	1.2	1	5
Understanding of Internet financial products	Use of Internet financial management	0 = not understood; 1 = yes	0.69	0.465	0	1
	Use of Internet lending	0 = not understood; 1 = yes	0.74	0.441	0	1
	Usage of third party payments	0 = not understood; 1 = yes	0.98	0.133	0	1
	Use of Internet insurance	0 = not understood; 1 = yes	0.42	0.495	0	1
Acceptance of Internet Finance	Acceptance of Internet financial management	0 = unwilling; 1 = willing	0.52	0.5	0	1
	Acceptance of Internet lending	0 = unwilling; 1 = willing	0.26	0.437	0	1
	Acceptance of third-party payment	0 = unwilling; 1 = willing	0.91	0.284	0	1
	Acceptance of Internet insurance	0 = unwilling; 1 = willing	0.43	0.496	0	1
Usage of network communication equipment	Service time of network communication equipment	The respondents actually use it every day	4.39	1.924	0	9

Table 4: Results of transaction cost constraint model of Internet use

		Low income group			Middle income group			Higher income group		
		Estimated value	Standard error	Significance	Estimated value	Standard error	Significance	Estimated value	Standard error	Significance
Threshold	[transaction cost constraint = 1]	-2.473	0.372	0	-2.878	0.41	0.001	-3.654	0.358	0.003
	[transaction cost constraint = 2]	-1.117	0.353	0.002	-1.572	0.321	0	-2.103	0.402	0
	[transaction cost constraint = 3]	-0.679	0.349	0.064	-0.732	0.361	0.074	-0.947	0.392	0
	[transaction cost constraint = 4]	-0.324	0.364	0	-0.41	0.402	0.001	-0.536	0.365	0.023
Position	Service time of network communication equipment	0.153	0.051	0.003	0.162	0.043	0	0.113	0.1	0.05
	[know Internet banking = 0]	-1.181	0.222	0	-1.185	0.31	0.008	-0.385	0.264	0.013
	[know Internet lending = 0]	-0.525	0.237	0.102	-0.623	0.228	0.132	-0.142	0.301	0.221
	[know third party payment = 0]	-0.305	0.651	0.1	-0.413	0.548	0.201	-0.165	0.422	0.267
	[know Internet insurance = 0]	-0.067	0.181	0.212	-0.135	0.176	0.18	-0.105	0.223	0.197
	[willing to use Internet for financial management = 0]	-0.248	0.174	0.005	-0.318	0.185	0.121	-0.022	0.278	0.016
	[willing to borrow from the Internet = 0]	-0.27	0.201	0.034	-0.301	0.223	0.008	-0.132	0.135	0.009
	[willing to pay by third party = 0]	0.012	0.36	0.219	0.006	0.354	0.196	0.016	0.502	0.278
	[willing Internet insurance = 0]	-0.583	0.178	0.001	-0.594	0.186	0.231	-0.113	0.152	0.163

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Table 5: Model results of the impact of Internet technology adoption on information deviation constraints

		Low income group			Middle income group			Higher income group		
		Estimated value	Standard error	Significance	Estimated value	Standard error	Significance	Estimated value	Standard error	Significance
Threshold	[information deviation constraint = 1]	-3.346	0.389	0	-3.356	0.325	0	-3.417	0.412	0.001
	[information deviation constraint = 2]	-2.149	0.354	0	-2.231	0.284	0.002	-2.098	0.268	0
	[information deviation constraint = 3]	-1.036	0.348	0.543	-1.13	0.316	0.024	-1.082	0.32	0
	[information deviation constraint =4]	-0.055	0.353	0.001	-0.034	0.417	0.323	0.013	0.269	0.246
Position	Service time of network communication equipment	0.058	0.051	0.248	0.046	0.025	0.137	0.047	0.112	0.01
	[know Internet banking = 0]	-0.767	0.218	0	-0.81	0.31	0.006	-0.813	0.279	0.038
	[know Internet lending = 0]	-0.122	0.236	0.306	-0.113	0.154	0	-0.096	0.348	0.207
	[know third party payment = 0]	-1.285	0.66	0.052	-1.31	0.578	0.114	-1.273	0.741	0.078
	[know Internet insurance = 0]	-0.192	0.181	0.292	-0.187	0.094	0.321	-0.202	0.233	0.219
	[willing to use Internet for financial management = 0]	-0.022	0.173	0.091	-0.031	0.216	0.038	0.017	0.185	0.054
	[willing to borrow from the Internet = 0]	-0.532	0.201	0.008	-0.497	0.247	0.177	-0.513	0.304	0.317
	[willing to pay by third party = 0]	-0.775	0.358	0.03	-0.768	0.341	0.265	-0.782	0.419	0.034
	[willing Internet insurance = 0]	-0.626	0.178	0	-0.631	0.109	0.078	-0.63	0.071	0

Table 6: Model results of the impact of Internet technology adoption on cognitive bias

		Low income group			Middle income group			Higher income group		
		Estimate-d value	Standard error	Significa-nce	Estimated value	Standard error	Signific-ance	Estimated value	Standard error	Significa-nce
Threshold	[cognitive bias constraint = 1]	-2.594	0.37	0	-2.648	0.337	0.005	-2.377	0.367	0.006
	[cognitive bias constraint = 2]	-1.679	0.351	0.004	-1.754	0.315	0	-1.698	0.34	0
	[cognitive bias constraint = 3]	-1.018	0.348	0.329	-1.003	0.422	0	-1.102	0.413	0.064
	[cognitive bias constraint = 4]	-0.265	0.358	0	-0.245	0.368	0.243	-0.236	0.285	0.051
Position	Service time of network communication equipment	0.13	0.051	0.01	0.106	0.212	0.134	0.975	0.101	0
	[know Internet banking = 0]	-0.926	0.219	0	-0.854	0.079	0.126	-0.723	0.354	0.314
	[know Internet lending = 0]	-0.347	0.236	0.21	-0.301	0.305	0.007	-0.244	0.279	0.008
	[know third party payment = 0]	0.194	0.649	0.285	0.178	0.573	0.378	0.2	0.312	0.247
	[know Internet insurance = 0]	-0.084	0.18	0.042	-0.042	0.175	0.039	-0.021	0.285	0.109
	[willing to use Internet for financial management = 0]	-0.254	0.173	0.141	-0.199	0.166	0.073	-0.137	0.163	0.122
	[willing to borrow from the Internet = 0]	-0.605	0.201	0.003	-0.524	0.214	0.317	-0.436	0.376	0.04
	[willing to pay by third party = 0]	-0.034	0.361	0	-0.017	0.349	0	-0.008	0.192	0.023
	[willing Internet insurance = 0]	-0.271	0.176	0.123	-0.229	0.187	0.005	-0.145	0.307	0

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Table 7: Model results of the impact of Internet technology adoption on credit risk constraints

		Low income group			Middle income group			Higher income group		
		Estimate-d value	Standard error	Significa-nce	Estimate-d value	Standard error	Significa-nce	Estimate-d value	Standard error	Significa-nce
Thre-shold	[credit risk constraint = 1]	-2.756	0.37	0	-2.623	0.354	0	-0.352	0.332	0.001
	[credit risk constraint = 2]	-1.462	0.353	0	-1.397	0.417	0.02	-1.535	0.169	0
	[credit risk constraint = 3]	-0.34	0.347	0.328	-0.328	0.208	0.006	-0.324	0.278	0.052
	[credit risk constraint = 4]	-0.103	0.359	0	-0.113	0.311	0.168	-0.117	0.401	0
Posit-ion	Service time of network communication equipment	0.054	0.05	0.052	0.062	0.241	0.304	0.063	0.358	0.087
	[know Internet banking = 0]	-0.534	0.215	0.013	-0.634	0.057	0	-0.489	0.105	0
	[know Internet lending = 0]	-0.525	0.236	0.026	-0.489	0.309	0.106	-0.621	0.661	0.32
	[know third party payment = 0]	-0.561	0.649	0.387	-0.631	0.471	0.05	-0.482	0.32	0.117
	[know Internet insurance = 0]	-0.171	0.18	0.342	-0.182	0.089	0.042	-0.163	0.128	0.038
	[willing to use Internet for financial management = 0]	0.105	0.173	0.187	0.144	0.274	0.116	0.136	0.227	0
	[willing to borrow from the Internet = 0]	-0.489	0.201	0.015	-0.509	0.168	0.039	-0.501	0.326	0.178
	[willing to pay by third party = 0]	0.033	0.358	0.015	0.047	0.4	0.286	0.046	0.077	0.323
	[willing Internet insurance = 0]	-0.39	0.176	0.027	-0.41	0.064	0.005	-0.228	0.093	0

2. Policy recommendations

Based on the research results of the fourth chapter, this paper puts forward the following policy suggestions:

The government, banks and other financial institutions have made greater use of the Internet to publicize the loan policy business and related financial knowledge, so that farmers can understand the loan policy, loan procedures, loan conditions and other knowledge from a variety of different ways. Avoid the phenomenon that farmers give up loans from formal financial institutions such as banks even if there is a demand for credit due to their wrong understanding of the loan policies of formal financial institutions such as banks.

Strengthen the government's Internet infrastructure construction in rural areas. This study shows that the Internet plays a very positive role in reducing farmers' demand-based credit constraints. Strengthening the construction of rural Internet coverage can broaden farmers' access to information, enable farmers to have a correct understanding of the relevant policies and measures of banks and other financial institutions, and alleviate the information asymmetry between farmers and financial institutions to a certain extent, So that farmers can borrow from banks and other formal financial institutions when they have capital needs.

The government has strengthened its understanding of the credit situation of farmers with different income levels in the jurisdiction, implemented differential preferential agricultural loans for villages with different economic development levels, and focused on farmers with different income levels. For high-income farmers, strengthen the direct contact and exchange between banks and other financial institutions and farmers, alleviate the phenomenon of information asymmetry, increase the credit ration, and accelerate the transformation, upgrading and development of high-income farmers. For middle-income farmers, focus on the demand-based credit constraints they face, and strengthen the use of Internet information media to disseminate loan information, so that they can have the confidence to expand their business activities and speed up their transformation into high-income people. For low-income farmers, on the one hand, we should strengthen the combination of online and offline to publicize the loan policies and processes of banks and other financial institutions to farmers. On the other hand, we should appropriately reduce the access threshold of rural financial institutions and increase the loan preference for low-income farmers, so that they can obtain loans with confidence, so as to alleviate their credit constraints.

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