

Research on the Construction of New Rural Credit Evaluation Index System under the Background of Rural Governance Modernization

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Abstract: Based on sorting out the high intrinsic value coupling between the modernization of rural governance and the development of rural credit system in China, following the development requirements of rural revitalization and the principles of credit evaluation index system construction. This paper develops a new type of rural credit evaluation evaluation system by Delphi method and Analytic hierarchy process, which contains 6 first-level indicators of economic dimension, political dimension, cultural dimension, social dimension, ecological dimension and incentive dimension, and 23 second-level indicators. The results were also analyzed.

1. Introduction

Due to China's vast territory, unbalanced economic development and uneven level of rural development, coupled with the fact that relevant laws and regulations are not yet sound and management supervision is not yet perfect, problems such as insufficient credit awareness in rural areas, lack of credit information sharing platform, absence of credit evaluation subjects and backward credit evaluation methods have emerged in the process of rural credit system construction in various places, which seriously hinder the development of rural finance and the realization of the effectiveness of rural governance. Therefore, it is urgent to create a new type of rural credit evaluation system that meets the characteristics of rural governance and serves the development of rural finance.

2. Research status

In recent years, the sociology of finance has become one of the rapidly developing research fields in economic sociology with its rich theoretical perspectives. As a powerful tool for optimizing resource allocation, rural finance has played an increasingly important role in rural governance[1]. Financialization has become an essential factor concerning rural governance capacity and the efficiency of rural revitalization[2]. From the perspective of rural development, establishing a modern, efficient and smooth financial system is the first proposition for developing an agricultural economy. The improvement of the rural credit system can promote the development of rural microcredit and effectively solve the pressure of rural poverty and provide a corresponding policy

guarantee for rural microcredit[3]. Credit is the core and critical link of financial reform, and establishing a good credit environment is a fundamental guarantee for economic development and improving financial efficiency [4]. It also can effectively play a role in developing inclusive digital finance, which can significantly enhance the level of high-quality development of rural industries. The more backward the region's economic status is, the more sensitive it is to the rural industrial spillover dividend brought by inclusive digital finance [5]. From the perspective of rural governance, rural credit system construction and rural governance have a high degree of intrinsic value coupling. The target tasks of both are highly consistent, both to build an excellent rural social order[6], and both emphasize individual credit and equal and orderly participation of multiple subjects in grassroots society. There is a coupling relationship between the construction of a rural credit system and rural revitalization in terms of action and reaction [7];

Yuyao City of Zhejiang Province has first established a rural credit system of "moral bank" by relying on a "moral points," [8]. Inspired by this, Yingtan City, Jiangxi, innovatively explored the maximum convention of rural self-governance [9]. Successively, the "five-in-one" model of rural credit system construction created by County A of Guangxi has realized the practical unification of the economic function of rural credit and the effectiveness of social governance[10]. Dangtu County of Anhui Province has incorporated the results of agricultural civilization evaluation into the rural credit rating. [11].

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3. Construction of a new rural credit evaluation index system

3.1 The principles for the construction of the evaluation index system

1. Carefully consider the depth and breadth of the new rural credit system for the modernization of rural governance and digital inclusive financial services.
2. Both vertical and horizontal comparability. The modernization of rural governance and the development of inclusive rural finance is a dynamic development process.
3. Highlight the diversification and multi-level indicators to serve rural governance and the development of inclusive rural finance.

3.2 Selection and description of indicators

Under the above principles, this study consulted 10 experts in the field of rural governance and rural finance

and related fields through the Delphi method. It combined the characteristics of the new form of rural governance modernization with the availability and reliability of data to determine the new rural credit evaluation index system. As shown in Table 8.

3.3. Data processing

3.3.1. Construct a discriminant matrix

A total of six experts in related fields were invited to score them using the 1-9 scale method, Based on the scoring results of each expert, the judgment matrix of each group of indicators was obtained. If $CR < 0.1$, then pass the consistency test.

3.3.2. Construction of criterion-level and indicator-level judgment matrices

Calculated from YAAHP.10 to obtain

Table 1 C Criterion level judgment matrix

C	C1	C2	C3	C4	C5	C6	W _D	
C1	1	3	2	3	3	5	0.3632	$\lambda_{max} = 6.0175$ CI=0.0035057 CR=0.0027823 CR<0.10 (Consistency test passed!)
C2	1/3	1	1/2	1	1	2	0.1186	
C3	1/2	2	1	2	2	3	0.2165	
C4	1/3	1	1/2	1	1	2	0.1186	
C5	1/3	1	1/2	1	1	2	0.1186	
C6	1/5	1/2	1/3	1/2	1/2	1	0.0643	

Table 2 C1 judgment matrix

C1	C11	C12	C13	C14	C15	C16	W _D	
C11	1	1	1	3	2	2	0.2296	$\lambda_{max} = 6.0138$ CI=0.002765 CR=0.0021945 CR<0.10 (Consistency test passed!)
C12	1	1	1	3	2	2	0.2296	
C13	1	1	1	3	2	2	0.2296	
C14	1/3	1/3	1/3	1	1/2	1/2	0.0699	
C15	1/2	1/2	1/2	2	1	1	0.1206	
C16	1/2	1/2	1/2	2	1	1	0.1206	

Table 3 C2 judgment matrix

C2	C21	C22	C23	W _D	
C21	1	2	1/2	0.2970	$\lambda_{max} = 3.0092$ CI=0.0046014 CR=0.0088488 CR<0.10(Consistency test passed!)
C22	1/2	1	1/3	0.1634	
C23	2	3	1	0.5396	

Table 4 C3 judgment matrix

C3	C31	C32	C33	W _D	
C31	1	2	2	0.5000	$\lambda_{max} = 3$ CI=-4.4409 CR=-8.5402 CR<0.10(Consistency test passed!)
C32	1/2	1	1	0.2500	
C33	1/2	1	1	0.2500	

Table 5 C4 Judgment matrix

C3	C41	C42	C43	C44	W _D	
C41	1	3	2	1	0.3509	$\lambda_{\max} = 4.0104$
C42	1/3	1	1/2	1/3	0.1091	CI=0.0034543 CR=0.0038812
C43	1/2	2	1	1/2	0.1891	CR<0.10(Consistency test passed!)
C44	1	3	2	1	0.3509	

Table 6 C5 judgment matrix

C3	C51	C52	C53	W _D	
C51	1	3	4	0.6250	$\lambda_{\max} = 3.0183$
C52	1/3	1	2	0.2385	CI=0.0091474 CR=0.017591
C53	1/4	1/2	1	0.1365	CR<0.10(Consistency test passed!)

Table 7 C6 judgment matrix

C3	C61	C62	C63	C64	W _D	
C61	1	1/2	1/2	2	0.1891	$\lambda_{\max} = 4.0104$
C62	2	1	1	3	0.3509	CI=0.0034543 CR=0.0038812
C63	2	1	1	3	0.3509	CR<0.10(Consistency test passed!)
C64	1/2	1/3	1/3	1	0.1091	

3.2.3. Determination of indicator weights

by applying the calculation method of group decision-making, as shown in the table below.

The final weights of indicators at each level were formed

Table 8 New rural credit evaluation index system

Target layer	Guidelines layer	weight	Metrics layer	weight	Total weight
New rural credit evaluation index system	Economic dimension C ₁	0.3632	annual household income c ₁₁	0.2296	0.083391
			annual household expenditure c ₁₂	0.2296	0.083391
			annual household savings c ₁₃	0.2296	0.083391
			number of household dwellings c ₁₄	0.0699	0.025388
			number of household vehicles c ₁₅	0.1206	0.043802
			other higher-value assets.c ₁₆	0.1206	0.043802
	Political dimension C ₂	0.1186	the degree of active participation in village-level public affairs c ₂₁	0.2970	0.035224
			the degree of active learning of current political hotspots c ₂₂	0.1634	0.019379
			the patriotism and love of the party c ₂₃	0.5396	0.063997
			Control school dropouts c ₃₁	0.5000	0.10825
	Cultural dimension C ₃	0.2165	Consciously resist corrupted culture c ₃₂	0.2500	0.054125
			Carrying on and promoting excellent traditional culture c ₃₃	0.2500	0.054125
			Compliance with social morality c ₄₁	0.3509	0.041617
	Social dimension C ₄	0.1186	Observance of professional ethics c ₄₂	0.1091	0.012939
			Maintenance of social order c ₄₃	0.1891	0.022427
			Practice social peace c ₄₄	0.3509	0.041617

Ecological dimension C ₅	0.1186	private environment is clean, and the public environmental protection consciously c ₅₁	0.6250	0.074125
		Rural garbage and sewage treatment cooperation c ₅₂	0.2385	0.028286
		Rural garbage and sewage treatment cooperation c ₅₃	0.1365	0.016189
Incentive dimension C ₆	0.0643	Participation in helping the poor and needy c ₆₁	0.1891	0.012159
		Participation in voluntary services c ₆₂	0.3509	0.022563
		Support rural construction and development c ₆₃	0.3509	0.022563
		Promoting rural economic development c ₆₄	0.1091	0.007015

4. Analysis of the results of new rural credit evaluation indicators

4.1. Farmers' economic status is the primary factor affecting loans

The but ranking of annual household income, expenditure and savings weight value is only 0.2296, but the comprehensive order reaches 0.083391, and the weights all reach above 0.05, and the single weight value of the number of household vehicles and other higher-value assets is only 0.126.

4.2. Farmers' cultural cultivation is a long-term factor affecting credit

From the weight, the cultural dimension is second only to the economic dimension, with a weight value of 0.2165. The weight value of consciously resisting corrupt culture and inheriting good traditional culture is 0.2500, but the total weight value reaches 0.054120, all greater than 0.05. Cultural cultivation lies over a long time and accumulation the whole society's good.

4.3. Farmers' political and social-ecological participation is the basis for influencing credit

From the weighting results, the political, social, and ecological dimensions each account for a small proportion, with a weighting value of 0.1186, but the weighting value of the three together reached 0.3358. the ecological dimension of "clean and tidy homes, public environmental protection consciousness from consciously maintaining the village environmental "order single weighting value of 0.6250, more than 0.5, the total weighting reached 0.074125, ranking.

4.4. Advanced benchmarking of farmers can lead to the improvement of villagers' credit level

The incentive dimension is lower than the other five primary indicators in weight, only 0.0643, and the total weight of the four secondary indicators is less than 0.03.

This indicator has a negligible impact on the credit level of farmers. Still, it is an excellent incentive for farmers to participate in public welfare activities and support the development of the countryside.

4.5. The growing importance of non-economic factors in rural credit evaluation

The credit assessment results of the new rural credit evaluation system in the context of rural governance are not only applicable to loans but are integrated into all aspects of rural governance and can be applied to all aspects of society, such as medicine and education, while promoting the effectiveness of rural governance.

5. Conclusion

The new rural credit evaluation index system in the context of rural governance modernization covers a wider and wider range, and the proportion of non-economic indicators is increasing, indicating that the effectiveness of rural governance has been greatly improved and grassroots autonomy has achieved certain results.

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