Research Process

1 Project Goal
2 Methodology
3 Analysis

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Insights

Analytical Hierarchy Process

- Step1: Construct decision hierarchy (based on group discussion and in-depth interview)
- Step2: Construct pairwise comparison matrix
- Step 3: Weight and recalculate the matrix
- Step 4: Evaluate the weights by calculating the consistency ratio

Finally, use the calculated weights to construct a formula, i.e. the credit scoring model. $Z = \sum (T_i \times W_i)$.

	A	В	C	D														
因素/权量	0.080	0.23	0.468	0.213														
A1 贷款人年龄	0.101				0.009		C	C1	C2	C3	C4	C5	C6) (77			
A2 勞动力数量	0.046				0.004		C1	4	2		2	0.5	0.25	0.333				
A3 贷款人身份	0.240				0.021				-						0		-	
A4 贷款人婚姻状况	0.035				0.003		C2	0.5	- 1		2	0.5	0.25	0.5	3			
AS 贷款人生活习惯	0.134				0.012		C3	0.5	0.5		1	0.333	0.25	0.333	3			
AS 家庭成员健康状态	0.206				0.018		C4	2	2		3	1	0.333	0.333	4			
A7 贷款人技能状况	0.239				0.021		C5	4	4		4	3	1	3	7			
B1 信用状况		0.59			0.128		C6		2		9	3	0.333					
B2 社会信誉认识		0.22	5		0.052			3	_		9	-			0		-	
B3 社会关系状况		0.13	-		0.036		C7	0.333	0.333	0.33	3	0.25	0.143	0.167	1			
B4 家庭責任等		0.07	2		0.017		SUM	11.333	11.833	15.33	3	8.583	2.559	5.666	27			
C1 家庭人均年刊收入		0.102 0.048 Column Standardize																
C2 家庭財产状况			0.088		0.041		0	C1	C2	C3	C4	CS	Ce		7			
G3 家庭生活条件			0.065		0.031												-	
C4 家庭生产经营条件			0.142		0.066		C1									0.10193231		
C5 家庭经营稳定性			0.354		0.166		C2	0.04411894	0.08450942	0.1304370	610.05	825466 0.0	97694410.0	08824567 (2.111111111	0.08776741		
CS 自由资金比例			0.215		0.101		C3	0.04411894	0.04225471	0.065218	BC 0.03	879762 0.0	97694410.0	05877162 (0.111111111	0.06542389		
C7 保险			0.033		0.016		CA	0.17647573	0.16901884	0.195656	45.0.11	650937.0.1	20128950	05877165	1491491	0.14210130		
DI 参与专业社团情况				0.110	0.023		04										-	0.100
D2 业务往来				0.581	0.124		C5									0.35441478		0.102
D3 综合印象				0.309	0.066		C6	0.26471366	0.16901884	0.195656	42 0.34	952812 0.1	3012895 0.1	17649135 (2222222	0.21539422		0.088
							C7	0.02938321	0.02814163	0.0217170	BE 0.02	912734 0.0	5588120 0.0	02947405 (0.0370370	0.03296605		0.065
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		~ 980	5 0 1057811581807				_			Mid.	ximum	Eigen valu	NO.			_		
	C5 家庭程度 0.1657911591867 B1 信用状分 0.128 C5 家庭修育者							0.73859369										0.033
	D2 业务往季0.1237643989737					B1 信用状况		0.6358309€										
						D2 业务证束		0.46682161										
		C6 自由資金0.1007042419936 D2 业务往来 C4 家庭生产0.0664372695326 C6 自由资金目						1.03938303		7.338746	0.1						$\overline{}$	
		DD 00分配 0 0050250025153 C4 家庭生产品								7.330770							-	
		四2 社会情報 0.052 D3 综合日業						2.67815822									$\overline{}$	
		TOWN TAX DRIVEN	m 0.002			DO NOTH OF		1.63511801										
								0.24009966										
								Consistency Test										
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								RI	1.36									
								CR	0.04151309									

Research Process



For rural loan officers, relative importance of credit indicators when assessing a loan application is as follow:

Ability to repay > Willingness to repay > Relationship with the cooperative > Family background

Using real loan application records as testing data set, the credit scoring model reaches prediction accuracy of 92%.

