

Rural Credit

Access, Use
and Repayment



Ta Nhat Linh

*University of Liege
April, 2020*

Credit Accessibility

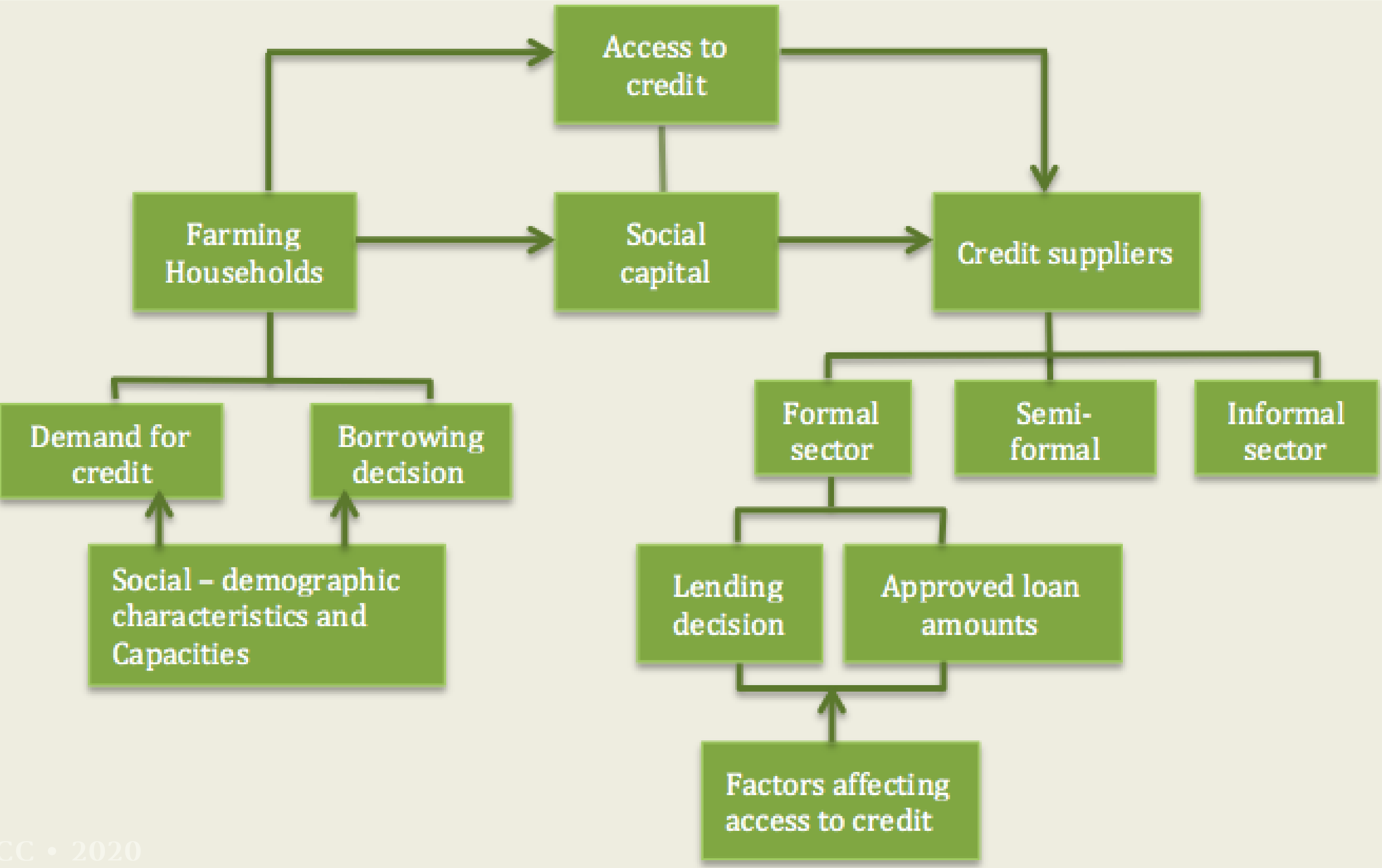
Determinants of access to rural credit of farming households

The case in Haiphong city, Vietnam

CONTENT

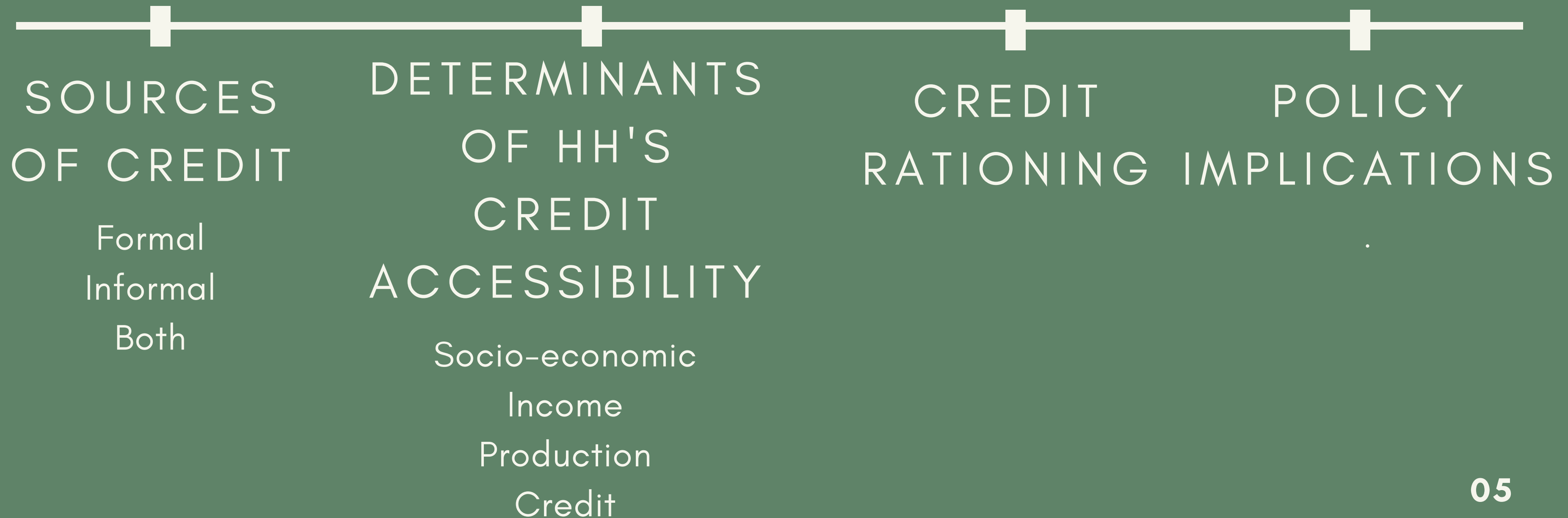
- ANALYTICAL FRAMEWORK
- RESEARCH OBJECTIVES
- RESEARCH QUESTIONS
- SELECTION OF RESEARCH SITE
- DATA COLLECTION
- DATA ANALYSIS

Analytical Framework



What is Research objectives

Research questions as correspondence





Selection of Research site

Haiphong city

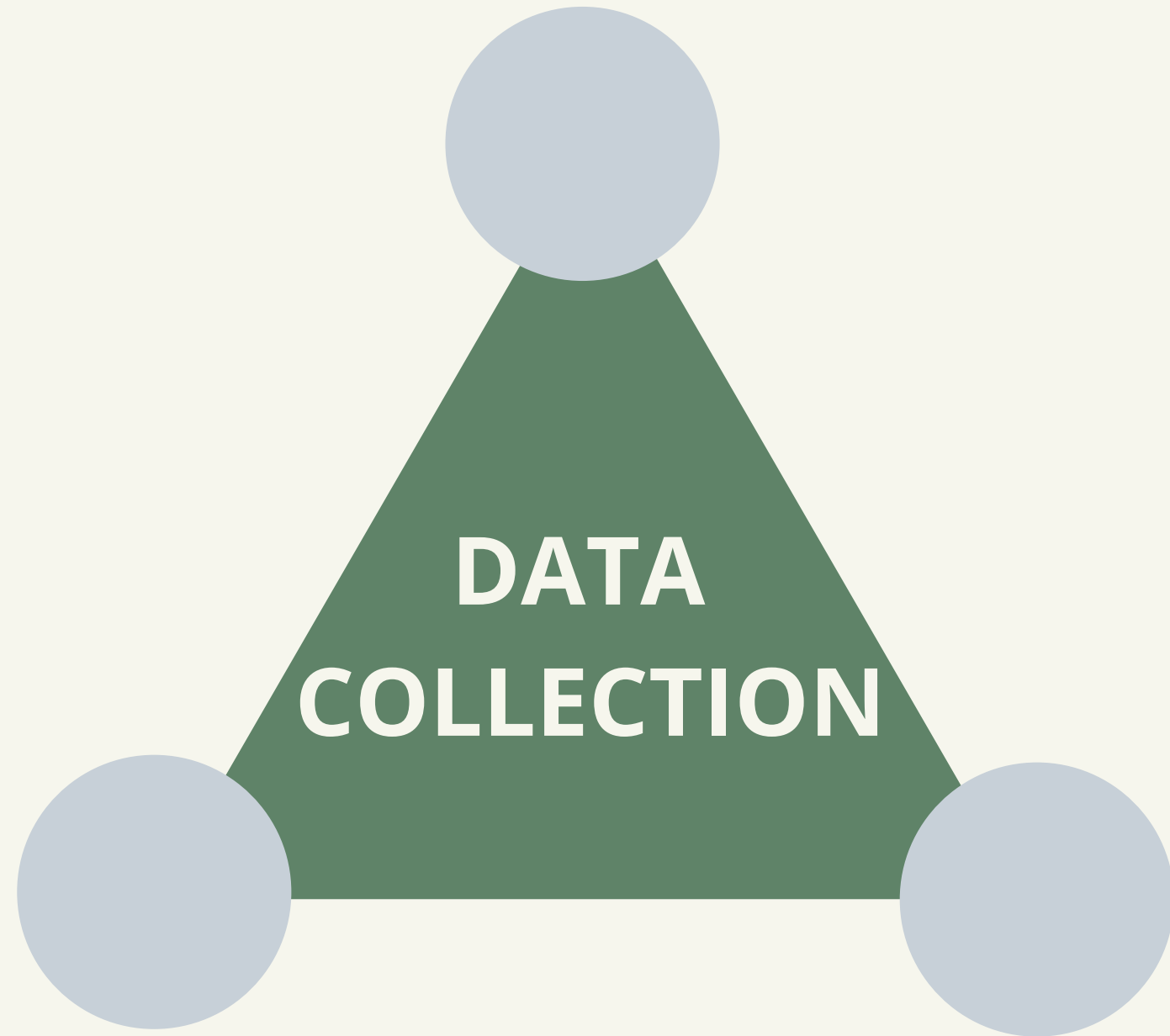
Tu Son

Tan Phong

Ngu Doan

Ngu Phuc

Key informant Interviews



Key informant interviews:
Local authorities
Formal credit suppliers

Focus Group discussion

Household surveys:
180 samples

**Focus group
discussion**

**Household
surveys**

DATA ANALYSIS

$$Y_i^* = \alpha_1 + \beta_1 X_i + u_i \quad (1)$$

$$Y_i = 1 \text{ if } Y_i^* > 0$$

$$Y_i = 0, \text{ otherwise}$$

$$B_i^* = \alpha_2 + \beta_2 X_k + e_i \quad (2)$$

$$B_i = B_i^* = \alpha_2 + \beta_2 X_k + e_i, \text{ if } Y_i^* = 1$$

$$B_i = 0, \text{ otherwise}$$

$$R_i^* = \alpha_3 + \beta_3 X_n + w_i \quad (2), \text{ if } Y_i^* = 1$$

$$R_i = R_i^* = 1 \text{ if rationed}$$

$$R_i = 0 \text{ if not rationed}$$

X : explanatory variables

Y^* : have access to credit sources if

Y : borrowing amounts of HHs if

$Y^* = 1$

R^* : credit rationing if $P^* = 1$

Results and Discussion

DESCRIPTIVE STATISTICS

RESULTS

DISCUSSION



DESCRIPTION OF VARIABLES

	Unit	Minimum	Maximum	Mean	Std. Deviation
Age	Years	29	70	51.4833	7.80236
Education	Years	5	12	8.7056	1.82685
Farming Experience	Years	8	50	29.1833	7.85872
Occupation	-	0	1	0.6389	0.48166
People in a family	Person	1	6	2.9944	1.04906
Dependency ratio	-	0	0.67	0.1616	0.22149
Farm land	m ²	100	18000	4046.0556	2495.60429
Owned land	m ²	75	7200	445.5722	561.75261
Agri_income	Million VND	20	1000	193.2278	159.44652
Non_agri_income	Million VND	0	360	67.82	68.97
Total_income	Million VND	30	1300	261.05	187.53107
Livestock	Million VND	32,000	3,030,000	667,983.3333	516,065.6461
Network connection	-	0	1	0.6333	0.48324
Formal amount	Million VND	20	1,000	105.68	141.62
Informal amount	Million VND	15	1,100	242.18	160.20
Number of observations		180			

SOURCES OF CREDIT

	Total		Tu Son		Tan Phong		Ngu Doan		Ngu Phuc	
	Number of HHs	%	Number of HHs	%	Number of HHs	%	Number of HHs	%	Number of HHs	%
None	18	10	2	4.3	1	2.3	5	11.1	10	22.7
Formal	19	10.6	3	6.4	0	0	10	22.2	6	13.6
Informal	53	29.4	14	29.8	16	36.4	12	26.7	11	25
Both	90	50	28	59.6	27	61.4	18	40	17	38.6
Total	180	100	47	100	44	100	45	100	44	100

SOURCES OF CREDIT

Formal sources	VBARD	VBSP	VBARD& VBSP	PCF	PCF& VBSP	Subtotal	Total sample
Number of HHs	22	61	9	16	1	109	180
%	20.18	55.96	8.26	14.68	0.92	100	

Informal sources	Relatives/ Friends	Local sellers	CSG*	Relatives& Local sellers	CSG & Local sellers	Money lenders & Local sellers	Relatives & CSG	Subtotal	Total sample
Number of HHs	1	91	7	19	18	3	2	141	180
%	0.71	64.54	4.96	13.48	12.77	2.13	1.42	100	

CREDIT CONSTRAINTS

	Applied households		Non-applied households		Total
	Non-rationed	Rationed	Credit demand	No credit demand	
Tu Son	2 (4.25%)	29 (61.7%)	2 (4.25%)	14 (29.8%)	47
Tan Phong	5 (11.36%)	22 (50%)	-	17 (38.64%)	44
Ngu Doan	10 (22.2%)	18 (40%)	-	17 (37.8%)	45
Ngu Phuc	18 (40.9%)	5 (11.36%)	1 (2.27%)	20 (45.47%)	44
Total	35 (19.44%)	74 (41.11%)	3 (1.67%)	68 (37.78%)	180

CREDIT MARKET PARTICIPATION

	All sources			Formal sources			Informal sources		
	Coefficient	S.E.	Sig.	Coefficient	S.E.	Sig.	Coefficient	S.E.	Sig.
Age	0.032	0.074	0.671	0.153	0.108	0.157	-0.057	0.047	0.223
Gender	0.179	0.731	0.807	2.487	1.348	0.065*	-0.203	0.456	0.656
Education	0.197	0.204	0.335	0.025	0.301	0.935	0.141	0.138	0.306
Occupation	0.467	0.739	0.528	-0.18	1.793	0.92	0.517	0.477	0.279
Group_membership	20.449	3801.872	0.996	12.521	3.746	0.001***	0.469	0.553	0.396
Ln_owned_land	-0.607	0.712	0.394	-0.469	0.787	0.552	-0.356	0.4	0.374
Ln_agri_income	0.267	0.587	0.65	0.877	0.956	0.359	0.723	0.362	0.046**
Dependency_ratio	-1.532	2.516	0.543	6.513	3.864	0.092*	-3.398	1.644	0.039**
Tuson	2.18	1.025	0.033**	4.64	2.403	0.054*	1.089	0.724	0.132
Tanphong	2.701	1.342	0.044**	2.755	2.561	0.282	2.534	1.152	0.028**
Ngudoan	0.631	1.076	0.558	-1.301	2.125	0.54	-0.378	0.67	0.573
Ln_farm_land	0.301	0.847	0.723	1.024	0.902	0.256	0.202	0.296	0.495
Connection	0.265	0.843	0.753	5.521	1.787	0.002***	0.018	0.584	0.975
Constant	-3.445	8.208	0.675	-28.993	11.368	0.011	-0.209	4.067	0.959
Observations	180			180			180		
-2 Log Likelihood	69.825			33.467			144		
Omnibus tests of model coefficients	Chi-square: 47.204 (Sig. 0.000)			Chi-square: 207.83 (Sig. 0.000)			Chi-square: 44.153 (Sig. 0.000)		
Correct Predicted Percentage	91.1			98.3			81.7		

INTERACTION BETWEEN FORMAL AND INFORMAL MARKETS

	Coefficient	S.E.	Sig.
Age	0.156	0.111	0.161
Gender	2.529	1.362	0.063*
Education	0.013	0.309	0.967
Occupation	-0.04	1.855	0.983
Group_membership	12.507	3.743	0.001***
Ln_owned_land	-0.526	0.809	0.516
ln_agri_income	0.926	0.966	0.338
Dependent_ratio	6.486	3.928	0.099*
Tuson	4.791	2.485	0.054*
Tanphong	2.868	2.602	0.27
Ngudoan	-1.355	2.11	0.521
Ln_farm_land	1.008	0.902	0.264
Connection	5.572	1.838	0.002***
Borrowing_informal	-0.385	1.352	0.776
Constant	-28.795	11.504	0.012
Observations	180		
-2 Log Likelihood	33.349		
Correct Predicted Percentage	97.8		

BORROWING AMOUNTS

	Formal				Informal			
	<i>Based</i>		<i>Extended</i>		<i>Based</i>		<i>Extended</i>	
	Coefficients	Sig.	Coefficients	Sig.	Coefficients	Sig.	Coefficients	Sig.
(Constant)	1.109	0.378	-0.183	0.898	0.486	0.511	-0.505	0.597
Age	0.005	0.688	0.009	0.436	0.001	0.933	0.001	0.888
Gender	-0.133	0.299	-0.143	0.277	0.03	0.663	0.096	0.26
Education	0.003	0.934	-0.008	0.829	0.001	0.961	-0.014	0.556
Occupation	-0.259	0.066*	-0.212	0.14	0.122	0.122	0.318	0.002***
Group_membership	-0.997	0.00***	-0.909	0.00***	-0.047	0.572	-0.063	0.555
ln_owned_land	0.085	0.443	0.169	0.198	0.037	0.547	0.094	0.262
ln_agri_income	0.239	0.014**			0.827	0.00***		
Dependency_ratio	0.308	0.418	0.046	0.916	0.005	0.983	0.246	0.428
Tuson	-0.145	0.512	-0.013	0.952	0.526	0.00***	0.808	0.00***
Tanphong	-0.218	0.315	-0.094	0.65	0.459	0.00***	0.701	0.00***
Ngudoan	0.059	0.776	0.192	0.345	0.449	0.001***	0.746	0.00***
ln_farm_land	0.238	0.003***	0.257	0.001***	-0.026	0.659	0.041	0.553
Connection	0.287	0.185	0.27	0.216	0.047	0.605	0.228	0.05*
Total people			0.124	0.14			-0.091	0.102
ln_total_income			0.223	0.054*			0.763	0.00***
Observations	109		109		141		141	
R square	0.553		0.549		0.799		0.701	

CREDIT RATIONING

	Coefficient	S.E.	Sig.
Age	-0.209	0.125	0.095*
Gender	0.997	1.324	0.452
Education	0.363	0.356	0.307
Occupation	-0.394	1.476	0.79
Group_membership	3.457	5.363	0.519
Ln_ownedland	-1.469	1.763	0.405
Dependency ratio	2.929	3.805	0.441
Tuson	1.155	2.012	0.566
Tanphong	2.026	2.364	0.391
Ngudoan	2.079	1.727	0.229
Ln_farmland	-0.401	0.687	0.559
NW	-1.225	2.088	0.557
People in a family	-1.478	0.731	0.043**
Ln_total_income	-2.035	1.325	0.124
Ln_applied_amount	6.161	1.883	0.001***
Borrowing_informal	3.429	1.786	0.055*
Constant	2.751	12.835	0.83
Observation	109		
Correct Predicted percentage	92.7		

Conclusion

- CREDIT MARKET PARTICIPATION
- BORROWING AMOUNTS
- CREDIT RATIONING
- QUESTIONS