

ACCESS TO CREDIT OF ANIMAL PRODUCTION HOUSEHOLDS: A STUDY IN HAI DUONG PROVINCE, VIETNAM

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ABSTRACT

Recently, the credit supply from the formal credit sector to the rural area has increased considerably. However, the credit supply to agriculture is still far from the actual credit need and mismatching with the economic and social contribution of agriculture sector to the rural area. Using data from the household survey in Hai Duong, finding of this paper shows that the credit supply from the formal sector did not meet the credit need of animal production households. In the borrower's side, dependency ratio, area of crop land, area of fish pond and number of pigs were main factors influencing their credit accessibility from the formal sector. In addition, age, educational level of household head and size of fish pond were key factors affecting the loan amount approved by the banks. The weaknesses in the rural credit supply from the formal sector also resulted in some constraints of animal producer's credit accessibility.

Keywords: Access to credit, animal production, rural credit, Vietnam.

Tiếp cận tín dụng của các hộ chăn nuôi: Nghiên cứu tại tỉnh Hải Dương, Việt Nam

TÓM TẮT

Trong những năm gần đây, cung cấp tín dụng cho nông thôn từ khu vực chính thức đã tăng trưởng đáng kể. Tuy nhiên đầu tư tín dụng cho nông nghiệp còn chưa đáp ứng được nhu cầu về tín dụng cho sản xuất và chưa tương xứng với đóng góp của nông nghiệp cho sự phát triển kinh tế và xã hội trong khu vực nông thôn. Nghiên cứu này sử dụng số liệu điều tra từ hộ chăn nuôi ở Hải Dương và kết quả của nghiên cứu chỉ ra rằng tín dụng cung cấp từ khu vực chính thức vẫn chưa đáp ứng được nhu cầu về tín dụng của các hộ chăn nuôi. Tỷ lệ người phụ thuộc, diện tích đất trồng trọt, diện tích ao, số lượng lợn thịt là các yếu tố liên quan đến nhu cầu vay của hộ về tín dụng từ khu vực chính thức. Ngoài ra, tuổi, trình độ học vấn của chủ hộ, diện tích ao cá là yếu tố cơ bản ảnh hưởng đến khả năng tiếp cận tín dụng của hộ từ các ngân hàng được phản ánh bằng số tiền vay nhận được. Những hạn chế trong cung cấp tín dụng nông thôn của khu vực chính thức cũng gây trở ngại cho tiếp cận tín dụng của người chăn nuôi.

Từ khóa: Chăn nuôi, tín dụng nông thôn, tiếp cận tín dụng, Việt Nam.

1. INTRODUCTION

In the period 2001-2010, the annual growth rate of credit supply¹ from Vietnam Bank for Agricultural and Rural Development (VBARD),

Vietnam Bank for Social Policies (VBSP), People Credit Funds (PCFs) and micro financial institutions was 21.0%, 34.5%, 22.6% and 45%, respectively². The growth of credit supply was resulted by the implementation of credit policies

¹ Inflation rates in Vietnam were 8.5% in 2005, 22.1% in 2008 and 9.2% in 2010 (GSO, 2010).

² Collected from the annual reports of VBARD, VBSP, PCFs and Microfinance intuitions.

in responding to agricultural and rural development. The formal sector, including VBARD, VBSP and PCFs was the main credit source in the rural area (Lan and An, 2005; World Bank, 2007). Moreover, in the period 2003-2007, the Government invested 113 thousand million VND in agriculture, roughly estimated to meet only 17% of the actual needed capital for this sector (Phong, 2010; Hung, 2012). The agriculture has played a crucial role in economic and social development of Vietnam. Presently, 60% of labour still engages in agriculture (GSO, 2010). Many Vietnamese experts stated that the Government's investment in the rural areas and credit supply to agriculture have been inappropriate. The relatively large gap between the economic contribution of agriculture to Vietnam's GDP and credit provision to agriculture exists (Anh, 2010; Ha, 2010; Phong, 2010).

Animal production is predominantly operated in small-scale household production units. At present, in the market the majority of meat is supplied by small producers. About 80% of poor households in Vietnam raise animals and about 30% of total agricultural income of households comes from animal production (Lapar et al., 2003). With its important role, in the strategy for animal production for the period 2010-2020 the Government of Vietnam stated that the improvement in small-scale of animal production is necessary to create stable income for farmers (DLHV, 2010). Given the limited financial capital of the poor and small producers, they cannot adopt new production technologies that demand higher investment and higher cost production (Lapar et al., 2006). The access to credit could reduce the constrained financial capital of farm households and provide the working capital for farmers to purchase production input and apply modern technologies as well. In Vietnam, credit is generally shown to have a significant impact on agricultural production of farmers (Duong and Izumida, 2002). It was suggested that an improvement in credit access of animal producer could facilitate the animal production. This paper aimed to

examine the current access to credit from various credit sources, identify the factors affecting credit accessibility of animal production³ households and finally draw some policy implications for a better credit access of animal production households from the formal sector.

2. RESEARCH METHODS

- Selection of the study site and data collection: Selection of the study site and sample households for primary data collection were done step by step. Hai Duong, located in the Red River Delta region, is selected as the study site due to some following reasons. Firstly, agriculture occupied 64.2% of total labour in 2010. Job creation in agricultural sector is required for their income generation. Secondly, the agricultural land area has been significantly reduced owing to the industrialized process, 7.6% in the period 2006-2010 (HDSO, 2010). Thirdly, Hai Duong has the potential for animal production because it is located near Hanoi capital, where the demand for meat and fish of consumers has increased steadily.

Hai Duong, Cam Giang, Chi Linh, Kim Thanh and Tu Ky districts, where 70-80% of total labour work in the agricultural sector, were selected as representative districts. Then in each district, one representative commune was randomly drawn. Finally, 145 animal production households, who operated in the small-scale and belonged to low and medium income households, were randomly selected for data collection by using a semi-structured questionnaire.

- Group discussion: It was organized to investigate the strengths and weaknesses of credits supply from formal credit sources based on farmers' assessment.

- Data analysis: SPSS software was used for data processing using descriptive statistics and analysis of variance (ANOVA). F- test was used for mean comparison.

³ Animal production refers to poultry, breeding and fattening pig, and fish production.

3. RESEARCH RESULTS

3.1. General profile of surveyed households

The surveyed households engaged in integrated animal production consist of poultry, breeding and fattening pig, and fish and differ in terms of scale. The proportion of annual income from animal production to total income was selected as a criterion to classify surveyed households into two groups, namely the animal-based group and the non animal-based group. The purpose of this classification was to explore some differences in credit accessibility between two groups.

As illustrated in Table 1, the age of household head, family size and the number of workers showed small differences between two groups. The household heads in the animal-based group have slightly higher educational level than those in the non animal-based group. Generally, the farmers with low level of education likely have more limited access to economic and social information than the others with high level of education. The area of crop land was of similar size for both groups and relatively small due to high population in Hai Duong. With limited land area for crop cultivation, the expansion and improvement in animal production are important for farmers. It could partly contribute to an increase in

household income. The animal-based group owned relatively large area of fish pond and higher value of assets than the non animal-based group.

3.2. Participation of households in the rural credit market

As detected from the survey, there was a high demand for credit from both groups. The animal-based group needs credit to buy feed, upgrade fish ponds and payback old loans. The farm households in the non animal-based group, who were unskilled workers, did not find stable off-farm jobs and earned low income from those activities. Therefore, they desired to borrow money for their animal production. The farmers borrowed money from the formal sector or the informal sector. It was also possible for them to borrow from both sources at the same time. 77.2 % of borrowers in the animal-based group obtained credit from the formal sector, while this figure in the non animal-based group was 51.4 % (Table 2). With respect to each formal credit source, the proportion of borrowers in the non animal-based group that obtained credit from VBSP (52.5%) was higher than that of the animal-based group (20.8%).

It was found that many borrowers in the non animal-based group were the poor - target clients of VBSP- so they borrowed money easily

Table 1. Information on surveyed households

Indicator	Unit	Animal-based group (n=58)		Non animal-based group (n=87)	
		Mean	S.D	Mean	S.D
Age of household head	Years old	45	7.5	46	9.3
Education of household head	School years	7.5	1.3	7.0	1.1
Family size	Persons	4.6	1.0	4.5	0.9
Number of workers	Persons	2.4	0.8	2.5	0.8
Dependency ratio		0.4	0.1	0.5	0.2
Area of crop land	1000 m ²	2.2	0.9	2.6	1.1
Area of fish pond	1000 m ²	9.8	6.7	4.0	3.6
Fish pond	Household	57		27	
Total value of assets	Mill. VND	127	84	85	62

Source: Household survey, 2011.

from this source. 60.4% of borrowers in the animal-based group got loan from VBARD, while this figure in the non animal-based group was 32.5%. This tendency was also similar for PCFs. Two main reasons led to this situation are: (i) VBARD and PCFs are commercial banks. The lending interest rates of both banks are determined by the same level of other commercial banks but higher than that of VBSP and (ii) Physical collateral is required for a borrower. However, the non animal-based group, including many of the poor, often lacks the physical collateral. As a result, they had less access to credit of VBARD and PCFs.

With regard to the informal sector, both groups borrowed money from this sector. The non animal-based group depended on the informal credit more than the animal-based group. This implies that the credit provided by the formal sector did not fulfil the credit need of farm households. Of the total number of surveyed households, 41 households did not get any credit in 2010, even they had credit need. Some farmers indicated that their families were ranked as the non-poor households in the village. Thus, they were excluded from the

VBSP's beneficiaries. Some others also reported that they did not get any loan from VBSP due to limited fund of the bank for lending. The remaining farmers did not borrow money from VBARD and PCFs owing to various reasons which are referred to in later section. On average, the number of borrowers from VBARD was the highest. The average amount of loan provided by VBARD was also the highest among the credit sources. The number of borrowers of PCFs was lower than those of VBARD and VBSP but loan amount of PCFs was ranked the second among the three formal lenders. VBSP provided small loans.

For all credit sources, the average loan amount of the animal-based group was considerably higher than that of the non animal-based group. Furthermore, the number of borrowers from the formal sector in the animal-based group was also higher than that in the non animal-based group. This partly reflects a higher demand for credit and a better credit accessibility of the animal-based group compared to the other group as both groups need loans to finance for their production and consumption.

Table 2. Financing sources of surveyed households in 2010

Indicator	Total		Animal-based group		Non animal-based group	
	No.	%	No.	%	No.	%
I. Surveyed households	145		58		87	
II. Borrowers						
1. Formal sector	81	62.8	44	77.2	37	51.4
- VBARD	45	48.4	32	60.4	13	32.5
- VBSP	32	34.4	11	20.8	21	52.5
- PCFs	16	17.2	10	18.8	6	15.0
2. Informal sector	48	37.2	13	22.8	35	48.6
- Friends and relatives	33	67.3	7	53.8	26	72.2
-Village moneylender	16	32.7	6	46.2	10	27.8
3. Both sectors	25		11		14	
III. Household without loan	41		12		29	

Source: Household survey, 2011.

Note: Total number of borrowers of the formal sector is lower than the total number borrowers from all lenders (VBARD, VBSP, PCFs) because one household can borrow money from different lenders in the same year. It is similar for the total number of borrowers from the informal sector.

Table 3. Loan amount by credit sources in 2010
(Unit: Million VND/per household)⁴

	Total		Animal-based group		Non animal-based group		F value
	Mean	Range	Mean	Range	Mean	Range	
I. Formal sector ⁵							
1. VBARD	28.2	5.0-50	31.9	15-50	18.8	5-30	16.6***
2. VBSP	8.4	4-17.2	8.5	4-17.2	8.3	4.3-8.6	0.01
3. PCFs	25.3	10-35	25.5	20-35	24.5	10-30	0.1
II. Informal sector ⁶							
1. Friend and relatives	5.6	1-20	10.2	2-20	4.3	1-13	13***
2. Village money lender	10	2.5-25	14.6	10-20	7.3	2.5-25	4.7 [*]

Source: Household survey, 2011.

Note: ***, **, * significant at 1%, 5% and 10% level, respectively.

3.3. Factors affecting borrowing amounts of households from the formal and informal sector

Table 4. Characteristics of household borrowers from the formal sector
(grouped by range of loan amount)⁷

Indicator	Unit	Range (million VND)				F- ratio
		Up to 10 n=20	11-20 n=18	21-30 n=27	31-50 n=16	
Age of household head	Years old	48.2 (7.6)	46.8 (9.1)	48.5 (6.6)	45.0 (7.1)	0.84
Education of household head	School year	6.8 (1.1)	7.3 (1.2)	7.2 (1.1)	7.5 (1.2)	1.6
Family size	Persons	4.7 (0.9)	4.5 (0.6)	4.8 (1.3)	4.3 (0.6)	0.75
Number of workers	Persons	2.3 (1.0)	2.5 (0.7)	2.6 (1.0)	2.4 (1.6)	0.47
Dependency ratio		0.53 (0.2)	0.45 (0.1)	0.41 (0.2)	0.43 (0.1)	1.3**
Area of crop land	1000 m ²	2.1 (0.6)	3.0 (1.2)	2.3 (1.3)	2.8 (1.1)	2.4 [*]
Area of fish pond	1000 m ²	1.2 (0.8)	3.1 (1.9)	3.5 (2.9)	4.2 (2.3)	2.3 [*]
Number of poultry	head	185 (60)	198 (95)	200 (101)	242 (18)	1.2
Number of pigs	head	10 (7.8)	15 (12)	17 (9.6)	25 ^b (14)	4.2***

Source: Household survey, 2011.

Note: ***, **, * significant at 1%, 5% and 10 % level, respectively.

Values in parentheses are standard deviation.

⁴ In 2010, on average 19100 VND = 1 USD.

^{5,6} In 2010, lending interest rates per month were: VBARD: 1.16-1.3%; PCFs: 1.25-1.5%; VBSP: 0.5-0.8%; informal moneylenders: 3%, estimated; and friend & relatives: 0%, normally. Loan terms were 2 years for VBARD, 1 year for PCFs and 2-3 years for VBSP

⁷ For this analysis, in order to obtain a good statistical result of mean comparison, borrowers did not separated into the animal-based group and the non animal-based group due to the small number of borrowers

In the transaction of credit, there are many factors that simultaneously determine the terms of contracts such as the amount, the interest rate, the purpose, the collateral and the repayment schedule. These are determined by agreement between borrower and lender in the rural market. It was observed that the loan amount received from a credit source is based on both credit demand and credit supply. The implication is that the demand and supply curves of credit cannot be identified separately (Duong and Izumida, 2002). Based on the loan amount, borrowers were classified into several groups to compare some differences in borrower's characteristic and its relation with their borrowing amounts (Table 4 and 5).

With respect to borrowing from the formal sector, it was found that the household heads obtaining higher level of education had a better skill of production and they also had better understanding of lending procedure of formal credit sources. Therefore, they wish to borrow a large amount of money for the expansion of production. Findings from the survey show that there were some small differences in family size and the number of workers among surveyed households. However, the dependency ratios of the households were quite different. The households having higher dependency ratios

borrowed lower amounts of money from formal sources than households having lower dependency ratios. It can be explained that they usually need credit for their urgent consumption while in the rural area of Vietnam the formal sector mainly provide credit for production and business. The households owned big fish ponds, higher number of poultry and pigs had higher demand of credit for purchasing of production inputs. They prefer to borrow money from formal credit sources because interest rates were quite lower than those of village money lenders. It was found that farmers did not use their loans from formal sources for crop production. Instead, they used their own money to invest in crop production, thus short of money for animal production. For this reason, households having larger area of crop land likely borrowed a large amount of money from the formal sector. In the demand side, the positive factors affecting borrowing amount from the formal sector were the educational level of household head, dependency ratio, area of crop land, area of fish pond, and number of poultry and pigs. The result of F-test showed that dependency ratio, area of crop land, area of fish pond and number of pigs were statistically significant. It means that they were dominant affecting factors.

Table 5. Characteristics of household borrowers from the informal sector
(grouped by range of loan amount)

Indicator	Unit	Range (million VND)				F- ratio
		Up to 10 (n=38)		11-25 (n=10)		
		Mean	SD	Mean	SD	
Age of household head	Years old	46.0	9.6	47.0	6.5	0.07
Education of household head	School year	7.1	1.0	6.9	1.2	0.15
Family size	Persons	4.5	0.8	4.9	0.8	1.6
Number of workers	Persons	2.4	0.8	2.6	0.9	0.25
Number of dependants	Persons	2.0	0.6	2.2	0.4	0.9
Dependency ratio		0.46	0.1	0.45	0.1	0.02
Area of crop land	1000 m ²	2.3	0.9	2.0	0.7	0.45
Area of fish pond	1000 m ²	2.2	1.4	5.3	4.5	4.8*
Amount of informal loan	Mill. VND	15.1	10.3	25	10.8	5.0**
Number of poultry	Head	173	58	226	89	5.0**
Number of pigs	Head	10.6	7.3	23.9	15.5	9.9***

Source: Household survey, 2011.

Note: ***, **, * significant at 1%, 5% and 10 % level, respectively.

With regard to borrowing from the informal sector, it was likely that old household heads had a better social relationship with their relatives and village moneylender. As a result, they borrowed larger amounts of money from the informal sources than the young household heads did. The educational level of the household heads had a negative relation with a borrowing amount from the informal sector because many of farmers who obtained high education normally tried to obtain credit from the formal sector. In addition, the households with large family size, high number of workers, high number of dependants, a large area of fish pond, and high number of poultry and pigs borrowed a high amount of money from the informal sector because they need credit not only for animal production but also for their family expenditure (e.g. tuition fee, medical fee, funeral expenditure and repayment of old loan). The informal sector is able to lend for such borrowing purposes due to flexibility and monitoring advantage of this sector. It is important to note that households who obtained large amounts of loan from the formal sector also borrowed large amounts of money from the informal sector. This phenomenon existed because many households borrowed money from moneylender to payback their old debt for the formal sources at a due date.

In the borrowers' side, the age of household heads, area of fish pond, number of poultry and pigs, and amount of loan from the formal sector positively affected borrowing amount from the informal sector while educational level of household heads negatively related to borrowing amount from the informal sector. The result of F-test showed that area of fish pond, number of pigs, and amount of loan from the formal sector were statistically significant. It implies that they were key factors influencing borrowing amount from the informal sector.

3.4. The formal sector's behaviours in responding to credit demand of households

Of total surveyed households, the poor household accounted for about one third. Loan from VBSP with subsidized interest rate was targeted to the poor. The fund of VBSP for lending is limited. Most of the non-poor realized that they were excluded from VBSP's beneficiaries. Consequently, they did not propose to borrow money from this source. On the other hand, the lending method of VBSP differs from those of VBARD and PCFs. VBSP uses the group lending method while VBARD and PCFs provide loan on the requirement of physical collateral. For these reasons, this paper only focused on analysing the behaviour of VBARD and PCFs as commercial banks responding to credit demand of farm households.

Table 6. Indicators reflecting participation of households and responses of VBARD and PCFs to their credit demand

	Total		Animal-based group		Non animal-based group	
	No.	%	No.	%	No.	%
1. Credit demanded household	145		58		87	
2. Non credit-applied household	69		11		58	
3. Credit-applied household	76	100	47	100	29	100
3.1. Approved loan application						
- A full required loan amount	41	53.0	26	55.3	15	51.7
- A part of required loan amount	20	27.0	16	34.0	4	13.8
3.2. Refused to approve a loan	15	20.0	5	10.7	10	34.5

Source: Household survey, 2011.

Both VBARD and PCFs are formal lenders and provide credit on collateral. In order to obtain credit from banks, households have to submit their loan application form to the banks. Of 145 surveyed households, 76 households applied for credit to VBARD or PCFs whereas 69 remaining households had demand for credit but they did not apply. The reasons leading to this situation were that they were afraid of not being able to repay their loans, afraid of being refused, lack of collateral and high interest rate. Among the households having applied for loans, 34 % of credit applied households in the animal-based group was provided a part of required loan amount, which was relatively higher than 13.8 % of credit applied households in the non-animal based group. It is necessary to note that the proportion of credit applied households, who were refused to provide loan, were 10.7% for the animal based group and 34.5% for the non animal-based group. For those who were not provided with loans, staff of the banks responded that it was due to unavailability of lending funds at the time they applied for borrowing money. The farmers also stated that annually in the last four months they were in needs of credit to invest in animal production. However, it is more difficult for them to obtain loan from banks.

VBARD and PCFs are lending on physical collateral⁸. Currently, the land use certificate⁹ is considered as the unique physical collateral accepted by VBARD and PCFs. Generally, the farm households who hold large land area and have the land use certificate have a better credit accessibility. Housing, production equipments

and livestock are not accepted as physical collateral. However, they also partly influenced lending decision of bank's staff, because staff of VBARD and PCFs visit the farmers' houses and take a look on their assets to estimate their asset value before deciding to provide loan. The farm households who possess high value of assets and high number of livestock may have a better capability of loan repayment. Therefore, they are likely to have a better credit accessibility. VBARD and PCFs provided the households with a fully required loan amount. The households who proposed a medium loan amount had a large land area, high value of assets and high number of poultry and pigs. Despite owning land use certificates, the households applying for higher amounts but having smaller land area, lower value of asset and lower number of pigs and poultry were provided lower loans as required or even refused to provide loan. It seems that the higher demand for loan amount of borrowers resulted to the more constraints from the banks.

In the rural area of Vietnam, the information on credit supply usually comes from the staff of mass organizations and PCFs in communes and is very important for borrowers to obtain a loan. It was found that the older household heads had a better credit accessibility than the younger because the older household heads had wider and stronger relationships with the communal staff than the young ones. As a result, they had a better ability to gather credit-relevant information. It implies that social relationships also affected credit accessibility of farmers. Furthermore, younger household heads with higher level of education and lower non-farm household income wish to borrow higher amounts of money for the expansion of livestock production. However, they were provided only partial amount of the requested loan. On the contrary, the household heads with older age and lower level of education had lower demand for credit but they were approved full required loan amounts. It was also found that in response to the strong demand for credit of young farmers,

⁸ VBARD does not require physical collateral for loan amount less than 10 million VND (based on Decision 67/1999/QĐ-TTg, credit policy for agriculture and rural development, dated May 30th, 1999).

⁹ In 1993, the government of Vietnam promulgated the land law with issuance of land use certificate for farmers and the introduction to a new law. Although land still remains the property of the state, under the new law usage rights could legally be transferred, sold, leased, bequeathed and used as collateral for loans. The duration of tenure rights was extended to 20 years for agricultural land and to 50 years for forest land.

Table 7. Indicators reflecting the influence of household's characteristics on lending decision of VBARD & PCFs

Indicator	Unit	Approved a full required loan amount (n=41)		Approved a part of required loan amount or Refused to provide a loan (n=35)		F-value
		Mean	S.D	Mean	S.D	
Amount of required loan	Mill. VND	24.5	9.8	58.5	21.5	71 ^{***}
Amount of approved loan	Mill. VND	24.5	9.8	33.5	7.9	12 ^{***}
Age of household head	Years old	48.2	7.7	44.5	7.8	4.1 ^{**}
Education of household head	School year	7.2	1.2	7.8	1.3	5.1 ^{**}
Family size	Persons	4.5	0.7	4.8	1.3	1.2
Dependency ratio		0.42	0.14	0.45	0.13	0.8
Area of crop land	1000 m ²	2.7	1.2	2.6	1.2	0.04
Area of fish pond	1000 m ²	39.3	2.5	30.6	2.2	1.9 [*]
Total value of assets	Mill. VND	132.1	96.6	120.7	73.7	0.3
Number of poultry	Head	226	101	195	87	1.9
Number of pigs	Head	20.9	14.3	17.7	9.3	1.0
Non-farm income	Mill. VND	24.3	16.7	22.6	13.3	0.2

Source: Household survey, 2011.

Note: ^{***}, ^{**}, ^{*} significant at 1%, 5% and 10 % level, respectively.

the formal sector limited their desired amount of loan. In summary, age, educational level, social relationship of household heads, land area, and number of pigs and poultry were factors influencing the lending decisions of VBARD and PCFs. The result of F-test showed that age, educational level and area of fish pond were key affecting factors.

3.5. Strengths and weaknesses of the formal sector in Hai Duong - An assessment of animal production households

Lack of access to credit and access constraints of farmers were not only determined by human, physical capital and social characteristics of animal production households but also influenced by weaknesses of rural

Table 8. Strengths and weaknesses of the formal sector's performance in Hai Duong

Strengths
Providing credit with the lower interest rate than the village moneylender.
Offering longer term of loan than the informal sector.
Applying more simple lending procedures than before.
Weaknesses
VBSP: (i) Limited fund for lending; (ii) High dependence on approval of the village head and the staff of local mass organization for loan obtaining; (iii) Irregularity of loan disbursement; (iv) Uniform loan amount.
VBARD: (i) Higher interest rate than VBSP; (ii) Shortage of lending fund in the rural area, particularly in the last months of years; (iii) Providing limited information on lending procedure and credit programs; (iv) Less interested in rural lending than urban lending.
PCFs: (i) Less attention to credit provision for agriculture (including animal production) than non- agricultural business; (ii) High interest rate than VBARD and VBSP; (iii) Short loan term.
Constraints to credit accessibility of animal production households
(i) Farmers lack information about lending program without requirement of physical collateral from VBARD; (ii) Many farmers hesitated to borrow money for animal production from VBARD and PCFs due to lacks of physical collateral, high interest rate and lacks of information on lending; (iii) Time of credit disbursement and amount of approved loan did not meet the credit demand of the borrower.

Source: Farmer group discussion, 2011.

lending of the formal sector the later is considered as an external affecting factor to credit accessibility of farmers. Assessment of farmers about the strengths and weaknesses of the formal sector in Hai Duong was carried out by group discussion (Table 8). The advantages or strengths of the formal sector have created opportunities for loan receiving of animal producers in the recent years. Besides, the weaknesses of this sector also lead to constraints for credit access of farm households.

4. CONCLUSION REMARKS

In Hai Duong, the credit supply of the formal sector did not meet the credit need of animal producers. Farm households still depend on credit from the informal sector. The animal-based group need more loan for their production than the other group. They borrowed larger amounts of money from the formal credit sector than the non-animal based group. The non animal-based group need credit, but they depend on the informal lenders. Credit accessibility of the animal production households affected by both demand side and supply side. With respect to demand side, area of crop land, fish pond and number of pigs were the major positive factors and dependency ratio was a negative factor affecting borrowing amount from the formal sector. It also found that area of fish pond, number of pigs, and amount of formal sector loan were dominant factors positively influencing on borrowing amount from the informal sector.

VBSP mainly provides credit for education expenditure. Therefore, credits provided by VBARD and PCFs were of crucial importance for animal production. The age, educational level of household head and area of fish pond were the main factors positively affecting loan amounts that were approved by VBARD and PCFs. The age of household head likely implied the social relationship of household. It could conclude that the social relationship also positively influenced the credit accessibility of farmers. The additional finding is the stronger credit needs of farmers were more rationed by

VBARD and PCFs. The study indicates that a large demand for credit exists in Hai Duong but weaknesses in rural lending of the formal sector resulted in some constraints of credit access by animal producers.

For borrowers' side, the findings suggest that it is necessary to improve education level and social relationship of farmers to enhance their credit accessibility to the formal sector. In addition, the formal sector should improve the credit supply that enables animal production households to have a better access to credit. Some policy implications for the formal sector consist of (i) For VBARD, information on credit program without collateral requirement should effectively inform to farmers. The lending network between VBARD and mass organizations should be strengthened. In the next years, it is important for VBARD to implement the Decree No.41/2010/ND-CP effectively (dated on August 12, 2010, which allows VBARD to provide non-collateral loan with a maximum of 50 million VND to farm households); (ii) With transaction offices located in commune, PCFs should have more competitive strategies to increase their outreach to the rural borrowers; (iii) Both VBARD and PCFs should enhance the ability of saving mobilization to have sufficient lending funds in order to meet the strong credit need of animal producers; (iv) For VBSP, the credit supply for agricultural production should also be increased.

REFERENCES

- Anh, Nguyen Kim. (2010). The Development of Rural Finance Market in Rural Area of Vietnam. Paper Presented at the Conference on "The Development of Rural Finance in Vietnam Effectively", 8-9 Novemember, 2010. Ha noi, Vietnam.
- DLHV (Department of Livestock Husbandry of Vietnam) (2010). Annual Report 2010 and the Strategy for the Coming Years based on the Decision 10/2008/QD/TTg on "Approval of the Strategy for Livestock Production up to the Year 2020, Promulgated by the Prime Minister of Vietnam dated on 16/10/2008".
- Duong, Pham Bao and Izumida Yoichi (2002). Rural Development Finance in Vietnam: A Microeconometric Analysis of Household Surveys. World Development 30: 319-335.

- GSO (General Statistical Office) (2010). Statistical Year Book. Statistical Publishing House. Hanoi, Vietnam.
- Ha, Nguyen Thu (2010). Current situation of Rural financial Market in Vietnam and Solutions for Development. Paper Presented at the Conference on "The Development of Rural Finance in Vietnam Effectively", 8-9 November, 2010. Ha noi, Vietnam.
- HDSO (Hai Duong Statistical Office) (2010). Hai Duong Statistical Year Book. Statistical Publishing House. Hanoi, Vietnam.
- Hung, Ho. (2012). Nông dân vẫn khát vốn. Doawndloaded 3/ 2012 from <http://www.baomoi.com/Home/TaiChinh/www.thesaigontimes.vn/Nong-thon-van-khat-von/5412701.epi>.
- Lan, Le and Tran Nhu An (2005). Towards a Viable Microfinance Sector in Viet Nam: Issues and Challenges. International Labour Organization in Vietnam. Working Paper. No.5.
- Lapar, Ma Lucila A., Vu Trong Binh and Simeon Ehui (2003). Identifying Barriers to Entry to Livestock Input and Output Markets in Southeast Asia. Livestock Sector Report. Livestock Information, Sector Analysis and Policy Branch. Food and Agriculture Organization.
- Lapar, Ma Lucila A., Vu Trong Binh, Nguyen Tuan Son, Marites Tiongco, Mohammad Jabbar and Steve Staal (2006). The Role of Collective Action in Overcoming Barriers to Market Access by Smallholder Producers: Some empirical Evidence from Northern Vietnam. Paper Presented at the Workshop on "Collective Action and Market Access for Smallholders". 2-5 October, Cali, Colombia.
- Phong, Nguyen Minh (2010). The Development of Rural Credit Market in Rural Area- Experience from China and Current Situation in Vietnam. Paper Presented at the Conference on "The Development of Rural Finance in Vietnam Effectively", 8-9 November, 2010. Ha noi, Vietnam.
- World Bank (2007). Vietnam - Developing a Comprehensive Strategy to Expand Access for the Poor to Microfinance Services- Promoting Outreach, Efficiency and Sustainability. Volume 1: The Microfinance Landscape in Vietnam. Washington, DC, The World Bank. Downloaded 12/2010, from <http://siteresources.worldbank.org/intvietnam/Resources>.