

How Credit Affects the Poor Household's Expenditure? A Case Study of Vietnam

Tran Thi Giang^{1,2*}, Guohua Wang¹, & Nguyen Dinh Chien²

¹College of Public Administration, Huazhong University of Science and Technology, China

²College of Economics, Hue University, Vietnam

*Correspondence: Tran Thi Giang, College of Public Administration, Huazhong University of Science and Technology, 1037 Luoyu Road, Wuhan, China. Tel: +86-131-6322-3709. E-mail: gianghce@yahoo.com.vn

DOI: 10.12735/jfe.v3i1p31

URL: <http://dx.doi.org/10.12735/jfe.v3i1p31>

Abstract

This paper aims to clarify the impact of the credit for the expenditure of poor households in Vietnam. We have used Difference in Difference (DID) methods to estimate the panel data from Vietnam Living Standard Survey (VLSS) for the period of 2010-2012. The results showed that the credit has a positive influence to the average expenditure of the poor households, whether in formal credit or informal credit. However, informal credit is still a very important source of credit for poor households in Vietnam because it increases expenditure of poor households higher than formal credit. In addition, research also found significant effects of some factors such as regional, ethnicity, education level, household size to expenditures.

JEL Classifications: C33, H81, P36, H31

Keywords: credit, poor household's expenditure, Vietnam

1. Introduction

Vietnam is considered as one of the few countries with encouraging achievements in poverty reduction (Gaiha & Thapa, 2007; World Bank Group, 2012). To achieve this result, many policy systems, mechanisms and measures to poverty alleviation have been implemented and have come to life such as: preferential credit; instructions on how to do business; medical support, education and so on. In particular, the Vietnam state is very interested in the credit support program for the poor.

According to Vietnam Poverty Assessment in 2012 of World Bank, Vietnam's poor households have lived mostly in rural areas and have been concentrated more and more on the highlands. Therefore, Poverty alleviation, especially poverty reduction in the rural areas is always put on the first priority and it is one of the major undertakings of the State of Vietnam to improve the material and spiritual life of the poor as well as narrow down the gap of development level between regions, localities, nations and groups. This paper will study the impact of the credit to the standard of living (expressed through expenditures for life) of poor households in rural areas of Vietnam.

Although there have been many studies on the role of credit policies to improve expenditure of poor households in different countries (Chowdhury, Ghosh, & Wright, 2005; Honohan, 2004; Quach, Mullineux, & Murinde, 2005; Shil, 2009; Zaman, 1999), there has not been any study

evaluating comprehensive impact of the credit for expenditure of poor households in Vietnam yet. Therefore, the objective of this study is to find out the relationship between credit policy and the expenditure of poor households as well as how formal and informal credits influences their expenditure generation in rural areas of Vietnam. On this basis, derive policies suggesting how to help in improving the lives for poor people in Vietnam.

2. Role of Credit for Expenditure of Poor Households

There are many different perspectives regarding the role of credit for the poor household's expenditure. Most of them showed that credit has a positive impact on the expenditure of poor households.

Pitt and Khandker (1998) measure the impact of group-based lending programs in Bangladesh, and find that the programs have had a positive and statistically significant impact on household consumption. Also, significant impacts of credit on expenditure increases in Pakistan are also found in Khandker and Faruquee (2003). Burgess and Pande (2003) examine the expansion of bank branches on household welfare especially to improve household's expenditure, had decreased poverty and inequality. Langat (2009) found that: There was a positive relationship between the amount borrowed and household expenditure. Mahjabeen (2008) provided that: microfinance institutions in Bangladesh raise consumption levels of households and enhance welfare.

Many universal scholarly researches have emphasized that: Providing Credit support for the poor households that is crucially helpful for them to promote their autonomy in production and business, promote the production of goods and also improve the accessibility to markets knowledge. It will further contribute to increase poor household's income as well as expenditure and will improve well-being of the lives for poorest lives (Armendáriz & Morduch, 2010; Baulch, 2002; Beck, Demirgüç-Kunt, & Levine, 2007; Jalilian & Kirkpatrick, 2002; Khandker, Barnes, Samad, & Minh, 2009; Robinson, 2001; Vincent, 2004). Support with credits will empower the poor households regarding the accessibility of financial sector. It will give different benefits for poor households such as new job opportunities, smooth income, consumption flows and etc. It is a chance for them to escape from their poverty (Green, Kirkpatrick, & Murinde, 2006; Latifee, 2003). In addition, credit is seen as an important tool for households to promote production and business and also to reduce consumption fluctuations. In which, Microcredit and other financial services would enable the poor to build assets and reduce their vulnerability to economic stress (Khandker, 2003; Mazumder & Lu, 2013; Morduch & Haley, 2002).

Some other studies in Vietnam such as: Nguyen Viet and Van den Berg (2011) also confirm that credit and access to credit is an important factor to determine the ability to improve living standards and escape the poverty of the poor. Quach *et al.* (2005) found that households' borrowing is positively and significantly related to household's welfare, in terms of per capita expenditure, per capita food expenditure and per capita non-food expenditure. On the other hand, capital loans have caused the change of poor conditions such as culture, arts, physical sport etc. Informal credit is an important source of capital flows for people in Vietnam (Conning & Udry, 2007; Guirking, 2008). In the early 1990s, informal credit accounted for more than 70% of total credit in rural areas (Pham & Lensink, 2007). The proportion of informal loans decreased over time because of the growing role of formal credit (Nguyen Viet & Van den Berg, 2011).

Although, there are many credit programs for the poor households, however, rural credit in Vietnam is still very underdeveloped. All of the rural areas poor households have only limited access to financial capital and they acquire it mainly through informal agents (Khan, 2000). Borrowed capital is often costly and is used to maintain consumption during hard times or to buy supplies and equipment needed for farming (Jan, Munir, Usman, & Idrees, 2012; Khan, 2000;

Nguyen Viet & Van den Berg, 2011). In addition, the non-poor also tend to receive large amounts of credit compared to the poor (Cuong, 2008).

3. Methodology and Data

3.1. Methodology

We have used DID method (see table 1) to estimate the impact of the credit on the poor households expenditure. To apply this method we must have to use the panel data. This method will divide these observations into two groups: Group 1 known as participating groups including the poor households classified by local; participated for borrowing capital within one year of VLSS in 2012 and did not borrow capital of 2010 VLSS. Group 2 called the comparison group including poor households didn't borrow capital in both surveys. This method has the advantage of separating the effects of the credit and the impact of other factors on the expenditures of the poor households; concurrently reflect differences in time (before and after the loan) and reflects the difference crossover (between households borrowing capital and households did not borrow capital). Besides, the expenditure of poor households is not only dependent on credit but also depends on many other factors such as: Households size, dependent rate, health care, education, etc. (Armendáriz & Morduch, 2010; Baulch, 2002; Beck *et al.*, 2007; Jalilian & Kirkpatrick, 2002; Imai & Gaiha, 2007; Khandker *et al.*, 2009; Robinson, 2001; Tuan, 2008; Vincent, 2004). Therefore, this research needs to combine DID and OLS method both together.

3.1.1. Model

$$Y_{it} = \beta_0 + \beta_1 D + \beta_2 T + \beta_3 G^*T + \beta_4 C_{it} + \varepsilon_{it}$$

In which:

Y_{it} is indicators reflecting expenditure per capita of poor household at time t

$G = 1$: Survey Households belong to participation group; $= 0$: Survey Household belong to comparison group

$T = 0$: Survey Households in 2010; $= 1$: Survey Households in 2012

C_{it} Control variables: Groups of variables reflecting the demographic characteristics, the production capacity of the poor, the characteristics of education and so on.

Table 1. Difference in deference (DID) methodology

Indicator	Expenditure per capita (Y_{it})		
	2010	2012	DID
Participating groups	β_0	$\beta_0 + \beta_1$	β_1
Comparison groups	$\beta_0 + \beta_2$	$\beta_0 + \beta_1 + \beta_2 + \beta_3$	$\beta_1 + \beta_3$
DID			β_3

3.1.2. Variables

Description and definition of the variables in the model: See table 2.

Dependent variable: Expenditure per capita at current prices of poor households.

Independent variables: Below is a list and definitions of independent variables

Table 2. Definitions of variables

Abbreviations	Definition	Unit
Dependent Variable:		
EXPPERCAP	Refers to an expenditure per capita of poor HH	1000 VND/person/month
Independent Variables:		
G	Dummy variables of group, = 0 if the poor households belong to comparison group (not loans), = 1 if poor households belong to participating groups (with loans).	
T	Dummy variables in time of the survey, = 0 if time of the survey is 2010, = 1 if the time is 2012.	
T*CREDIT	Variable interaction between group and time	
FOMACRE	Dummy variables of borrowing sector, = 1 if the poor households borrowed credit from formal sector in 2012 and non-borrow in 2010, = 0 if the poor households didn't borrow credit from formal sector both 2 years.	
T*FORMACRE	Variable interaction between formal credit sector and time	
INFOMACRE	Dummy variables of borrowing sector, = 1 if the poor households borrowed credit from informal sector in 2012 and didn't borrow in 2010, = 0 if the poor households didn't borrow credit from informal sector both 2 years.	
T*INFOMACRE	Variable interaction between informal credit sector and time.	
HHSIZE	Household size, by number of members in the poor household's family.	Person
DEPRATE	Dependency ratio of households, by number of dependents per worker.	Person
HEADAGE	Age of poor households head	Age
HEADMALE	The gender of the households head, = 1 if the households head is male, = 0 if the households head is female.	
ETHNIC	Ethnicity of households head = 1 if the Kinh ethnic, = 0 if the other ethnic	
AVERHHEDU	Average educational level of the household, by the average number of school years/1 person in poor household	Year
NONFARMINC	The rate of non-farm income in total income of poor household.	%
HEALTH EXP	The rate of Health expenditure in total income of poor households.	
LANDPERCA	The area of land per capita of poor household.	m ²
NORTH	North = 1 if poor household in North region, = 0 if poor household in other regions.	
SOUTH	South=1 if poor households in South region, = 0 if poor households in other regions	

3.2. Data

In this research, we have used panel data from two surveys of VLSS of 2010 and 2012. Because most of the poor people are concentrated in rural areas, so we selected poor households in rural areas as representation for all the poor households in whole country. In both of these two surveys, 628 households have become poor as classified by local in 2010. Because the sampling methods of two surveys were randomly selected, so this have meet the sampling requirements of the DID method. In addition, based on Vietnam poverty line in 2010, we have selected 64 poor households based on local classified, these households called as group participants. And selected 58 poor households as classified by local, these households called as comparison group.

Table 3. Characteristics of poor households in 2010

Indicator	Unit	Comparisons group			Participation group			T – stat
		Obs	Mean	Std. Err	Obs	Mean	Std. Err	
Expenditure per capital	1000VND/ person/month	58	314	16.1	64	317	15.8	-0.094*
Household size	Person	58	3.87	0.27	64	3.8	0.197	0.199*
Head age	Age	58	51.1	2.4	64	41.1	1.8	3.43
Dependency ratio	Person/labor	58	0.44	0.035	64	0.42	0.032	0.474*
Head male	%	58	0.6	0.065	64	0.5	0.062	0.949*
Land per capita	M ²	58	1645	209	64	1699	148	-0.210*
Kinh ethnic	%	58	0.24	0.05	64	0.38	0.06	-1.595*
Average education level	Year	58	3.29	0.25	64	3.926	0.26	-1.733
Non-farm income	%	58	7.5	1.6	64	8.4	1.7	-0.383*
Health expenditure per capita	%	58	26.2	7.8	64	20.7	2.8	0.668*
South	%	58	0.24	0.056	64	0.34	0.059	-1.236*
North	%	58	0.41	0.065	64	0.37	0.06	0.434*

Source: Author's calculations based on data from VLSS in 2010

Note: Hypothesis: $H_0 = \text{mean}_0 = \text{mean}_1$; $H_1 = \text{mean}_0 \neq \text{mean}_1$

* Two groups had similar characteristics (hypothesis H_0 is not rejected with statistically significant at 1%, 5% or 10%).

To estimate results is meaningful, important assumption of the DID method must ensure that these two groups have similar characteristics at the initial study time (2010). If the two groups are not loans, their expenditure will similar changes from 2010 to 2012. Implementation of t - test of the average difference between the two groups (see table 3) showed that: two groups had similar characteristics (*) such as income per capita, households size, gender, ethnicity of the households head, average land area/household, dependency ratio, the ratio of non-agricultural income, expenditure for health care, and region. This suggests that the database consistent with the assumption of the research methods.

4. Results and Discussion

4.1. The Impact of Credit on Poor Household's Expenditure

To assess the impact of the credit on the expenses of the poor households, we conducted regression relationship between expenditure per capita with credit and other control variables. In which, the regression coefficients of the variables interaction between credit and time reflects the impact of the credit to expenditure per capita of poor households. To eliminate the effects of inflation, the research used expenditure at current prices.

This study used DID method combinations; OLS regression to estimate the data-set. White test showed that the data has phenomenon of Heteroscedasticity (Het) in the regression. To overcome the Het we will use regression with robust standard errors. The regression results in Table 4 showed that the credit has had a positive impact on expenditure per capita, because it increased expenditure per capita of poor households in all three regression models at 1% statistically significant level.

Model 1 showed that credits have a positive impact on the average expenditure of poor households in the high reliability, at 1% significance level the poor household's loaned capital will have higher expenditure than the poor households non-loan capital is 129.09 thousand (VND/person/month) with other factors is constant.

Beside credit factor, there are many other factors affecting the expenditure of poor households in rural areas of Vietnam. So we have added control variables in the model. The regression results in model 2 showed: at 1% significance level credit increased expenditure of poor households is 105.01 thousand (VND/person/month) compared to poor households not borrowing. In model 3 we added level of education variable as a control variable and removed the variables, not statistically significant in model 2. Test the suitability of the model showed that model 3 is the best because P-value (F_{static}) = 0.000 < 1 and $R^2 = 66\%$ larger than model 1 and 2.

Results from model 3 showed that credit has increased expenditure of poor households was 100.72 thousand (VND/person/month) (equivalent to 32% in average real expenditure of poor households). Thus, the poor people can ensure a better standard of living, reducing the risk of vulnerability and future generations can better develop physically and mentally. Therefore, creating favorable conditions for the poor household access to credit is really necessary.

In addition, household's size also negatively affected on poor household's expenditure, the greater the household's size will make their expenditure for the life lower. At 1% significance level, the poor household has one more member; their expenditures will be lower 11.64 thousand (VND/person/month) compare to other poor household, while other factors are constant. This has been supported by studies of Deaton and Paxson (1998) and Nu (2012).

Expenditure of poor households also depends upon ethnic composition of the households head. With 5% significance level, expenditure level of the Kinh ethnic household's higher ethnic minority households is 32.44 thousand (VND/person/month). This is perfectly reasonable because the Kinh ethnic households tend to live in delta and usually it is easy to access the plentiful and diverse goods as compared to those ethnic minorities, which prefer to live in remote areas where even transportation is difficult. Moreover, the Kinh ethnic households often have educational qualifications and better skill, so they can easily update information as well as technical applications in production. Therefore they improve their income and increase expenditure for their lives.

The level of education is an important variable; it has a significant impact on poor household expenditure and had been proven by many studies as Tilak (2002) and Doan (2011). In this research, when other factors are constant, with 1% significance level, the one year increase in average years of schooling of poor households will increase their expenditure by 20.51 thousand (VND/person/month). As higher education level would help poor households to easily and promptly update their information as well as comprehend and apply new technologies in manufacturing, they

can avail many opportunities to find good jobs with higher income levels. Therefore it will contribute to ensure a better life for their demand.

Table 4. Impact of credit on poor household's expenditure

Indicates Independent variables	Estimate Result		
	Regression Model 1	Regression Model 2	Regression Model 3
Intercept	314.46 (0.000)*	320.70 (0.000)*	249.34 (0.000)*
CREDIT	2.13 (0.926) ⁺	-15.08 (0.458) ⁺	-24.02 (0.152) ⁺
T	88.91 (0.000)*	92.25 (0.000)*	89.36 (0.000)*
T*CREDIT	129.09 (0.001)*	105.01 (0.000)*	100.72 (0.000)*
HEADAGE		-.24 (0.668) ⁺	
HEADGENDER		25.52 (0.186) ⁺	
HHSIZE		-16.69 (0.006)*	-11.64 (0.004)*
DEPRATE		-9.91 (0.607) ⁺	
ETHNIC		54.378 (0.001)*	32.44 (0.030)**
AVEREDU			20.51 (0.000)*
NONFARMINCO		4.49 (0.000)*	3.87 (0.000)*
HEALTHEXP		-1.776 (0.080)***	-1.587 (0.079)***
LANDPERCAP		.0029 (0.557) ⁺	
SOUTH		48.76 (0.008)*	48.40 (0.004)*
NORTH		25.70 (0.098)***	16.13 (0.265) ⁺
R ² - squared	0.35	0.61	0.66
F-static	0.0000		
N	244	244	244

Source: Author's calculations based on data from VLSS in 2010 and 2012

Note: The value in parentheses is P-value, * statistically significant at 1% level, ** statistically significant at 5% level, *** statistically significant at 10% level, ⁺ No statistically significant at 10% level

When dividing the living area of two groups into three different regions: North, Middle and South, regression results showed regression coefficient of the South dummy variable is positive and statistically significant at 1% level, the regression coefficients of the North dummy variables not statistically significant at 10% level. From which, there are sufficient grounds to assert that if other factors are the constant, the poor households living in the South have higher levels of expenditure as compared to poor households living in middle and North is 48.40 thousand (VND/person/month). Reason is the North and Middle regions usually have geographic location unfavorable, harsh climate, frequently occurring natural disasters, floods as well as limited natural resources, land produced more than Southern regions. Therefore the poor people in the North and Middle are difficult to stabilize and diversify production, thereby reducing their income and expenditure. This result has been supported by studies of Nu (2012).

Besides, expenditure on health also have effect on poor households expenditure but not considerable. If poor households have to spend on health care, their expenditure will be reduced by 1.587 thousand (VND/person/month). Although spending on health is important, but due to very low income of poor households, almost all their income is utilized on the expenditure focused on the daily necessities of life. Therefore, health spending is negligible.

Unlike the conclusions of previous studies as Tilak (2002); Langat (2009); and Nu (2012), the effect of age as well as gender of households head, the rate depends on poor household's expenditure is not statistically significant at 10% level. The reason is that: despite mainly expenditure of poor households is to ensure daily necessities, but due to increased awareness there is an improvement of equality expenditure between men and women in rural area of Vietnam. In addition, the poor households have done better family planning, fertility reduction and diversification of occupations, which has created more jobs and income for all household members. Therefore by reducing dependency ratio, the pressure on the primarily labor in the family has reduced.

4.2. The Impact of Formal and Informal Credit on Poor Household's Expenditure

Credit market for poor people in Vietnam including formal and informal credits exist side by side (Barslund & Tarp, 2008; Do & Iyer, 2003; Kovsted *et al.*, 2003; McCarty, 2001). The formal credit sector consists of the government's commercial banks, private banks, and other organized credit institutions led by the Agriculture Bank of Vietnam and Vietnam Bank for Social Policies. The informal credit sector includes private money lenders, relatives, friends, and local rotating savings and credit associations. Whether there are differences in the effects of two types of credit to poor household's expenditure? To answer this question the authors conducted regression models:

Results in table 5 showed that: at 1% statistically significant level and these factors are constant, formal credit has a positive impact on poor household's expenditure, while informal credit is not statistically significant at 10% (model 1), this result is supported by Viet Nguyen and Van den Berg (2014). The reason is that the process and procedures of loan in formal sector are simplified and convenient as compared to the last period. So almost all poor people can have access to the formal credit system with lower interest rates. Poor people will have more opportunities to expand investment and production as well as to improve efficiency of loan capital, which will contribute to increase their income which ultimately increases their expenditure. Besides borrowing capital from the informal sector has often very high interest rate and shorter term of loan, and most of the poor households have no reasonable methods of production, so it fails to promote the efficiency of the loan capital.

According to the estimated results, there are other factors affecting expenditure of poor households (accounting for 69%). So we have added some control variables in the regression model. The results in model 2 showed that: at 1% statistics significant level, formal and informal credit has positive impact on the expenditure per capita of poor households. Poor household borrowed capital from the formal sector will improve their income by 95.92 thousand (VND/person/month) as compared to the case of non-loans; if a poor household borrows capital from informal sector will

increase their income by 124.45 thousand (VND/person/month) as compared to the case of non-loans, if other factors are constant.

Table 5. Impact of formal and informal credit on poor household's expenditure in Vietnam

Indicates	Estimate Result	
	Regression Model 1	Regression Model 2
Intercept	314.465 (0.000)*	288.58 (0.000)*
T	93.082 (0.000)*	93.11 (0.000)*
FORMCREDIT	-.836 (0.971) ⁺	-29.55 (0.120) ⁺
INFORMCREDIT	94.03 (0.306) ⁺	-65.17 (0.032)**
T*FORMCREDIT	126.42 (0.000)*	95.92 (0.000)*
T*INFORMCREDIT	20.59 (0.831) ⁺	124.45 (0.000)*
HEADAGE		-.68 (0.216) ⁺
HEADGENDER		21.76 (0.243) ⁺
HHSIZE		-16.17 (0.004)*
DEPRATE		-10.03 (0.532) ⁺
ETHNIC		31.81 (0.037)**
AVEREDU		21.55 (0.000)*
NONFARMINCO		3.86 (0.000)*
HEALTHEXP		-1.56 (0.081)***
LANDPERCAP		.0015 (0.723) ⁺
SOUTH		51.53 (0.004)*
NORTH		11.57 (0.425) ⁺
R ² squared	0.31	0.67
N	244	244

Source: Author's calculations based on data from VLSS in 2010 and 2012

Note: The value in parentheses is P-value, * statistically significant at 1% level, ** statistically significant at 5% level, ***statistically significant at 10% level, ⁺ No statistically significant at 10% level.

In addition ethnic compositions, level of education and living places also have a great impact on poor household's expenditure at statistically significant level of 5%, 1% and 1% respectively. If poor households headed by Kinh ethnic, the level expenditure of poor household will be higher than other poor households is 31.81 thousand (VND/person/month); the one year increase in the average years of schooling of poor households will increase their income by 21.55 thousand (VND/person/month) and poor households living in the South region will have expenditure higher than other households is 51.53 thousand (VND/person/month). The reason is that poor households are Kinh people; they often have higher levels of education than other ethnic households, so they will know how to use loans effectively through the expansion of production activities as well as diversification of employment to generate additional income and increase expenditure. Moreover the South region often has favorable weather conditions which minimize the risks in agricultural production activities. In contrast, households size and expenditure for health have negative effects on the expenditure of poor households, at 1% significance level, the increase in poor household by one more member decreases their income by 16.17 thousand (VND/person/month). And expenditure for health effect is negligible.

From regression results in model 1 and 2, it is revealed that to promote the effectiveness of informal credit, not only provide them loan but also it must be combined with some other aspects. And these aspects are the improved level of education, better family planning, guidance and awareness of the methods of scientific and technical applications in production, diversification of production activities to adopt the natural conditions of each region to promote the advantages of each zone. Thus we can say that access to credit has helped to improve the lives of poor people whether it is formal credit or informal credit.

5. Conclusions

We have used DID and OLS methods to estimate the panel data. Which are filtered from two datasets of VLSS of 2010 and 2012 representing poor households in whole country. The study has found some important conclusions which are as follows:

Credit has helped to increase the expenditure of poor household's equivalent to about 32% compared to the average expenditure of poor household's. Formal and informal credits were increasing expenditure for life of poor households. Although, informal credit have higher interest rates (almost twice) as compared to the formal credit, but it is still a very important source of credit for poor household's in Vietnam. Because, Informal credit has increased the expenditure of poor household's to 28.53 thousand (VND/person/month) higher than formal credit, it has accounted for 9% in average total expenditure of poor households. Thus, the credit has contributed significantly to improve the lives of the poor households. In addition, credit policy for poor people not only needs preferential interest rates but also requires simple procedures and quick processing to meet the urgent capital needs of poor households.

This study has also found relationship between the poor household's expenditure with other factors: There exists significant expenditure difference between Kinh ethnic and ethnic minority's household as well as poor households living in South and other area. In addition, average schooling years of each member in poor households is an important factor affecting their expenditure as poor households with high educational level will increase their expenditure as compared to other households is 21.52 thousand (VND/person/month). Therefore investment in education is the basis to escape poverty in a sustainable way. Besides implementation of good family planning as well as reduction in the birth rate and dependent rate will contribute to increase the expenditure of poor household's because increasing one person in poor households reduces their expenditure by 11.64 thousand (VND/person/month). However, studies did not find effect of age as well as gender of the household's head, the dependency ratio and land area on poor household's expenditure at 10% statistic significant level.

Credit has a positive impact on poor household's expenditure. This positive impact will also be an important contribution to improve the lives of the poor households, reduce vulnerability and inequality and giving them more opportunities to integrate into community life. Therefore improving policies to improve the efficiency of credit in order to serve the poor people is really essential.

References

- [1] Armendáriz, B., & Morduch, J. (2010). *The economics of microfinance* (2nd ed.). Cambridge MA.: The MIT press.
- [2] Barslund, M., & Tarp, F. (2008). Formal and informal rural credit in four provinces of Vietnam. *Journal of Development Studies*, 44(4), 485-503.
- [3] Baulch, B. (2002). *Poverty monitoring and targeting using ROC curves: Examples from Vietnam* (IDS Working Paper 161). Institute of Development Studies, The University of Sussex. Retrieved from <http://www.ids.ac.uk/files/dmfile/Wp161.pdf>.
- [4] Beck, T., Demirgüç-Kunt, A., & Levine, R. (2007). Finance, inequality and the poor. *Journal of Economic Growth*, 12(1), 27-49.
- [5] Burgess, R., & Pande, R. (2003). *Do rural banks matter? Evidence from the Indian social banking experiment*. *The American Economic Review*, 95(3), 780-795.
- [6] Chowdhury, M. J. A., Ghosh, D., & Wright, R. E. (2005). The impact of micro-credit on poverty: Evidence from Bangladesh. *Progress in Development studies*, 5(4), 298-309.
- [7] Conning, J., & Udry, C. (2007). Rural financial markets in developing countries. In R. E. Evenson & P. L. Pingali (Eds.), *Handbook of agricultural economics* (vol. 3, pp. 2857-2908). Amsterdam, The Netherlands: Elsevier.
- [8] Cuong, N. V. (2008). Is a governmental micro-credit program for the poor really pro-poor? evidence from Vietnam. *The Developing Economies*, 46(2), 151-187.
- [9] Deaton, A., & Paxson, C. (1998). Economies of scale, household size, and the demand for food. *Journal of Political Economy*, 106(5), 897-930.
- [10] Do, Q.-T., & Iyer, L. (2003). *Land rights and economic development: Evidence from Vietnam* (World Bank Policy Research Working Paper 3120). Washington, DC.: The World Bank. Retrieved from <http://dx.doi.org/10.1596/1813-9450-3120>.
- [11] Doan, T. T. (2011). *Impacts of household credit on the poor in peri-urban areas of Ho Chi Minh City, Vietnam* (Unpublished doctoral thesis). Hamilton, New Zealand: Department of Economics, University of Waikato. Retrieved from <http://hdl.handle.net/10289/5165>.
- [12] Gaiha, R., & Thapa, G. (2007). Growth, equity, and poverty reduction in Vietnam: Prospects and challenges. *Social issues under economic transformation and integration in Vietnam*, 2, 7-50.
- [13] Green, C. J., Kirkpatrick, C. H., & Murinde, V. (2006). Finance for small enterprise growth and poverty reduction in developing countries. *Journal of International Development*, 18(7), 1017-1030.
- [14] Guirkinger, C. (2008). Understanding the coexistence of formal and informal credit markets in Piura, Peru. *World development*, 36(8), 1436-1452.
- [15] Honohan, P. (2004). *Financial development, growth, and poverty: How close are the links?* (World Bank Policy Research Working Paper 3023). Washington, DC.: The World Bank. Retrieved from <http://hdl.handle.net/10986/14439>.

- [16] Imai, K., & Gaiha, R. (2007). *Poverty, inequality and ethnic minorities in Vietnam* (BWPI Working Paper 10). Manchester, UK: University of Manchester. Retrieved from http://www.bwpi.manchester.ac.uk/medialibrary/publications/working_papers/bwpi-wp-1007.pdf.
- [17] Jalilian, H., & Kirkpatrick, C. (2002). Financial development and poverty reduction in developing countries. *International Journal of Finance & Economics*, 7(2), 97-108.
- [18] Jan, I., Munir, S., Usman, A., & Idrees, M. (2012). Agricultural credit markets in northwest Pakistan: Implications for the development policy. *Sarhad Journal of Agriculture*, 28(3), 521-529.
- [19] Khan, M. H. (2000). *Rural poverty in developing countries: Issues and policies* (IMF Working Paper No. 00/78). Washington, D.C.: International Monetary Fund. Retrieved from <http://www.imf.org/external/pubs/cat/longres.aspx?sk=3544>.
- [20] Khandker, S. R. (2003). Microfinance and poverty: Evidence using panel data from Bangladesh. *World Bank Economic Review*, 19(2), 263-286.
- [21] Khandker, S. R., Barnes, D. F., Samad, H., & Minh, N. H. (2009). *Welfare impacts of rural electrification: Evidence from Vietnam* (World Bank Policy Research Working Paper 5057). Washington, DC.: The World Bank. Retrieved from http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2009/09/17/000158349_20090917100619/Rendered/PDF/WPS5057.pdf.
- [22] Khandker, S. R., & Faruquee, R. R. (2003). *The impact of farm credit in Pakistan*. *Agricultural Economics*, 28(3), 197-213.
- [23] Kovsted, J., Rand, J., Tarp, F., Nguyen, D. T., Nguyen, V. H., & Thao, T. M. (2003). *Financial sector reforms in Vietnam: Selected issues and problems* (MPRA Paper 29420). Germany: University Library of Munich. Retrieved from <http://mpra.ub.uni-muenchen.de/29420/>.
- [24] Langat, J. K. (2009). *Effect of credit on household welfare: The case Of "village bank" model in Bomet District, Kenya* (Unpublished Master Thesis). Egerton University. Retrieved from <http://ageconsearch.umn.edu/handle/117801>.
- [25] Latifee, H. I. (2003, June 09-10). *Microcredit and poverty reduction*. Paper presented at the International Conference on "Poverty Reduction through Microcredit". Taksim-Istambul, Turkey.
- [26] Mahjabeen, R. (2008). Microfinancing in Bangladesh: Impact on households, consumption and welfare. *Journal of Policy Modeling*, 30(6), 1083-1092.
- [27] Mazumder, M. S. U., & Lu, W. (2013). Micro-credit and poverty reduction: A case of Bangladesh. *Prague Economic Papers*, 22(3), 403-417.
- [28] McCarty, A. (2001). *Microfinance in Vietnam: A survey of schemes and issues* (EconWPA Finance 0110001). Hanoi, Vietnam: Department for International Development (DFID) and the State Bank of Vietnam (SBVN). Retrieved from <http://www.chs.ubc.ca/lprv/PDF/lprv0131.pdf>.
- [29] Morduch, J., & Haley, B. (2002). *Analysis of the effects of microfinance on poverty reduction* (NYU Wagner Working Paper No. 1014). New York, NY: NYU Wagner. Retrieved from http://pdf.wri.org/ref/morduch_02_analysis_effects.pdf.
- [30] Nguyen Viet, C., & Van den Berg, M. (2011). *The impact of informal credit on poverty and inequality: The case of Vietnam* (MPRA Paper 54758). Germany: University Library of Munich. Retrieved from <http://mpra.ub.uni-muenchen.de/54758/>.
- [31] Nu, P. T. (2012). Evaluate the impact of credit on poor reduce in rural of Vietnam. *Academic Journal of Hue university*, 72B(3), 215-224. Retrieved from <http://hueuni.edu.vn/portal/data/doc/tapchi/242.pdf>.

- [32] Pham, T. T. T., & Lensink, R. (2007). Lending policies of informal, formal and semiformal lenders. *Economics of Transition*, 15(2), 181-209.
- [33] Pitt, M. M., & Khandker, S. R. (1998). The impact of group-based credit programs on poor households in Bangladesh: Does the gender of participants matter? *Journal of political economy*, 106(5), 958-996.
- [34] Quach, M. H., Mullineux, A. W., & Murinde, V. (2005). *Access to credit and household poverty reduction in rural Vietnam: A cross-sectional study*. Birmingham, UK: The Birmingham Business School, The University of Birmingham Edgbaston. Retrieved from <http://www.grips.ac.jp/vietnam/VDFTokyo/Doc/1stConf18Jun05/OPP01QuachPPR.pdf>.
- [35] Robinson, M. S. (2001). *The microfinance revolution: Sustainable finance for the poor* (Vol. 1). Washington, D.C.: The World Bank.
- [36] Shil, N. C. (2009). Micro Finance for Poverty Alleviation: A Commercialized View. *International Journal of Economics & Finance*, 1(2), 191-205.
- [37] Tilak, J. B. (2002), *Determinants of household expenditure on education in rural India 2002*. New Delhi, India: National Council of Applied Economic Research.
- [38] Tuan, P. A. (2008). *Vietnam country case study* (Background Paper for the Chronic Poverty Report 2008-2009). Manchester: Chronic Poverty Research Centr.
- [39] Viet Nguyen, C., & Van den Berg, M. (2014). Informal credit, usury, or support? A case study for Vietnam. *The Developing Economies*, 52(2), 154-178.
- [40] Vincent, G. (2004). *Sustainable microentrepreneurship: The roles of microfinance, entrepreneurship and sustainability in reducing poverty in developing countries*. Kobe, Japan: Global Development Research Center. Retrieved from http://www.gdrc.org/icm/micro/guy_sust-micro.pdf.
- [41] World Bank Group. (2012). *World Development Indicators 2012*. Washington, DC.: The World Bank.
- [42] Zaman, H. (1999). *Assessing the poverty and vulnerability impact of micro-credit in Bangladesh: A case study of BRAC* (World Bank Policy Research Working Paper 2145). Retrieved from <http://dx.doi.org/10.1596/1813-9450-2145>.

Copyrights



Copyright for this article is retained by the author(s), with first publication rights granted to the journal. This is an open-access article distributed under the terms and conditions of the [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

