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Relationship Between Non-Formal Credit and the Welfare of Indonesian Households

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Abstract

This study used Indonesian Family Life Survey (IFLS) data and applied the fixed effect estimation method. This study showed that informal credit had a more negative impact on household welfare compared to the use of formal credit. In addition, the use of semi-formal credit caused a more negative impact on household welfare compared to the use of formal credit. It can be due to higher interest rates in the use of informal credit compared to semi-formal and formal credit. This study also indicated that credit used for productive purposes brought about a more positive impact than credit used for consumptive purposes. The higher the amount of credit used, the more positive the impact on household welfare is compared to the use of fewer loans. This research results can be the basis for the government to concern about the policy of credit interest rates to the public.

Keywords: formal credit, semi-formal credit, informal credit, interest rate

JEL Classification: D1, D6, G2, R2

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1. Introduction

The poor and near-poor households often face *shocks* that can affect their economic stability as crops failed, the existence of a sick household member, disaster, and others. As a result, poor and near-poor households usually have constraints in financial inclusion. One of which is due to the Indonesian banking that implements the condition of the economy, capacity, capital, collateral, and character (5C principle) in providing credit. Meanwhile, the poor and near-poor households are challenging to meet the 5C principles (Pradiptyo, Sugiyanto, Sumiyana, and Dwiputri, 2013). Therefore, the poor and near-poor households have a severe level of credit constraints. As a result, the poor and near-poor households use credit facilities from semi-formal financial institutions to get semi-formal credit, and also use informal financial institutions to get informal credit. This loan was used for business or productive purposes, and also for consumption smoothing to overcome the shock arises.

Semi-formal and informal financial institution has more priorities to the principle of 'character' compared to other principles (Pradiptyo, Sugiyanto, Sumiyana, and Dwiputri, 2013). The semi-formal and informal financial institutions realized that households who have a capital or meet the 5C principles tend to use formal credit than semi-formal or informal credit because of the lower interest rate (However, according to the interview, there were rich people who use semi-formal and informal credit because it is easier and uncomplicated). Therefore, semi-formal and informal financial institutions will give credit to those who are considered to have "good character". The people who have "good character" were assumed to fulfill the contract with reasonable performance payment. However, a considerable risk is compensated by a higher interest rate compared to formal credit. The semi-formal and informal financial institutions prioritized the principle of 'character' in giving credit. Therefore, the poor people who only meet the criteria of 'character' will tend to use semi-formal and informal financial institutions for consumption smoothing as well as its operations of the business. Meanwhile, Carter and Barrett (2006) revealed that there is a link between asset ownership, poverty, and vulnerability.

Because some households are difficult to access banking sector, they utilize semi-formal financial institutions, as well as cooperative, Baitul Maal waTamwil (BMT) even "informal moneylenders". In fact, the interest rate given by semi-formal and informal financial institutions in Indonesia is relatively higher compared to banks as formal financial institutions (Pradiptyo, Sugiyanto, Sumiyana, and Dwiputri, 2013). In reality, the majority of poor households in the world have limited access to financial institutions in an effort to consumption smoothing (Dercon, 1996; Zeller, Schrieder, Von-Braun, and Heidhues, 1997; Robinson, 2001).

Farmers and rural households have a greater tendency to get informal credit than formal credit (Dev, 2006; Chavan, 2007). This condition is not much different from Indonesia, therefore, many households in Indonesia still use semi-formal and informal financial sector to get credit for their businesses (Most poor and near-poor households in Indonesia get a business loan from cooperative and BMT. In fact, there are still households in Indonesia are utilizing the services of moneylenders, mindhring for consumption smoothing and fulfilling their needs.). Pradiptyo, Sugiyanto, Sumiyana, and Dwiputri (2013) explained that on average, the interest rate given by semi-formal financial institutions such as cooperatives, and BMT to the loan recipients is 20%. There is no significant difference between the interest rate of sharia and non-sharia semi-formal financial institution. Meanwhile, informal institutions such as *mindhring* take advantage of 50% to provide credit to their customers mostly categorized as poor and near-poor

households. Another case is moneylenders who takes very high-interest rate, that is more than or equal to 50%.

In India, Dev (2006) revealed that the moneylender could give the interest rate of 50% up to 60%. Bell, Srinivasan, and Udry (1997) stated that the demand for loans of poor and near-poor households is inelastic to the interest rate. This fact indicates that poor and near-poor households who incidentally have a high degree of risk and uncertainty in their revenues will have low prosperity levels. If there were no policies in favor of programs for poor and near-poor households, their welfare might decline. External factors such as government policies, political institutions, and non-governmental organizations play an important role in determining the ease of a household to accumulate their assets (Moser, 2006). In its implementation, Madestam (2014) argued that formal and informal loans can be complementary or substitution.

Related to this case, Ogundeji, Donkor, Motsoari, and Onakuse (2018) argued that the government should support the community to obtain access to credit to improve their welfare (Study in Lesotho farmers). In this case, the Government of Indonesia helps poor and near-poor households in supporting their consumption smoothing by transfering activity and providing banking services through productive credit (The examples of productive credit in Indonesia are public business credit (Kredit Usaha Rakyat/KUR), farmer business credit (Kredit Usaha Tani/KUT), etc.). The informal financial institutions as a means of smoothing consumption for poor households. Kamath (2007) identified the benefits received by households on the use of loans from the informal sector; one of them is to maintain their life from economic shocks. However, Zarazua and Copestake (2008) argued that public should be given an understanding of how to save, manage finances, calculate the interest rate, and access credit in the formal sector because of the lower interest rate.

The high risk borne by non-formal financial institutions is compensated by a higher interest rate compared to bank credit. With the difference in interest rates between formal and non-formal financial institution, then this study intended to enrich the existing research by identifying the effects of semi-formal and informal credits used by the Indonesian households in influencing the level of welfare. This study hypothesizes that the use of semi-formal and informal credits allegedly to have higher interest rate than formal credit, then it will give negative impact on the households' welfare. That harmful effect can be reflected from households' consumption. This study aimed to identify the effect of the informal and semi-formal credit to the Indonesian households. Additionally, this study does not separate the impact of sharia and non-sharia credit because their interest rates do not have a significant difference.

2. Literature Review

2.1. Permanent-Income Hypothesis

This study used consumption per household as the outcome variable. In the theory of consumption, Keynes (1936) stated that the amount of aggregate consumption depends on aggregate income. In Indonesia, the income data are hard to identify. It is because the majority of households tend to conceal their income for many reasons. Besides, poor households are likely to tell their income is much smaller, since they expect the government assistance. Therefore, the increase in welfare was measured by consumption expenditure. Keynesian Consumption Theory subsequently developed into several hypotheses as the Permanent-Income Hypothesis and the Random Walk Hypothesis.

This study used the theoretical approach of the Permanent-Income Hypothesis in which consumption is on the uncertainty (Romer, 2008). The Permanent-Income Hypothesis suggests that individuals' consumption in each period was influenced by the amount of all assets and their lifetime income. This study used the proxy of consumption as a measure of social welfare. Variable consumption, as the outcome variable, will be controlled by households' characteristics considered to have a relationship with variable assets, revenues, and characteristics of residence that influencing their consumption behavior.

2.2. Financial Inclusion and Financial Institution

Ledgerwood (1999) divided financial institutions into three categories: formal, semi-formal, and informal. According to Ledgerwood (1999), the formal financial institution is an institution that should be subject to general laws, regulation, and supervision as well as banking regulations. Besides, the formal institutions consist of Public Development Bank, Private Development Bank, Savings Bank, Private Bank, and intermediaries (non-bank financial intermediaries). Semi-formal institutions subject to the laws and regulations, without supervision and banking regulations composed of credit unions, cooperatives, Non-Governmental Organizations (NGOs), and some groups in the financial sector. Meanwhile, the informal institutions consist of *mindhring*, moneylender, landowners, and certain population groups, rotating savings and credit institutions, family and friends.

2.3. The Previous Research

The vulnerable people that are living in both rural and urban areas usually tend to smooth their consumption every time (Morduch 1995; Kinsey, Burger, and Gunning, 1998; Wik, 1999; Zeller, 2000; Skoufias, 2003; Laczo, 2007). They use both formal and informal credits for consumption smoothing. Generally, the interest rate of the semi-formal and informal credits is higher than that of the formal credit. Unfortunately, the poor and vulnerable households tend to use it, especially in the rural areas, because they do not have enough collateral to access the formal credit. In addition, they are still not educated enough to use credit facilities in the formal sector, especially. Dev (2006), Chavan (2007), and Gaisina (2011) also stated that farmers and rural households have a greater tendency to get informal than formal credit. However, some farmer households still use informal financial sector to obtain farming credit in Indonesia (Pradiptyo, Sugiyanto, Sumiyana, and Dwiputri, 2013) (Farming credit is called Kredit Usaha Tani in Indonesia).

In addition to collateral, other things that can affect credit constraints are regional conditions, namely rural or urban areas, credit procedures, credit periods, and loan interest rates (Chandio and Jiang, 2018). Chandio and Jiang (2018) also found that the level of education, and the age of farmers in Pakistan could be determinants that determine credit constraints. Meanwhile, the purpose of using credit, which is for consumptive or productive purposes, can also influence the improvement of people's welfare (For the more detail, see Langley (2014)). Then, Zarazua and Copestake (2008) suggested that people, need to be taught how to save, manage finances, calculate the interest rate, and access credit in the formal sector. The study of microfinance has been carried out. It found that microfinance could lower poverty (Kaboski and Townsend, 2012), and help the local economy, especially in Bangladesh (Khandker, 2005) (In that study Khandker (2005) used the fixed effect estimation method with a unique model. Khandker (2005) used the reduced form model of lines of credit by households. Reduced form models of the provision of credit were used as independent variables of the outcome variable).

The use of credit in semi-formal and informal financial institutions actually has a high risk for both the borrower and the lender. The borrowers have to pay a higher interest rate than the formal credit system. However, the lender has to bear the risk for bad performance installment payments. Therefore, the lenders should know their borrowers well (Familiar with their borrowers, the lenders can know their characters. Character is one of the principles of fifth C often used by semiformal and informal financial institutions i.e. character). According to Nisbet (1967), lenders usually have known their borrowers

well. In Indonesia, the lenders have known well the borrower's characteristics such as agricultural land, land size, output per harvest, the number of farm animals, skills and work capabilities, etc (According to the interview with some semiformal financial institutions in Yogyakarta, Eastern Kalimantan, and Southern Sulawesi in 2014).

The use of informal credit can provide some advantages or disadvantages. In that issue, Kamath (2007) has identified the advantages of informal credit to the household in India. In India, there was disadvantage of informal credit caused by its high interest rate. In addition, Kaboski and Townsend (2012) examined the impact of village funds using panel data and quasi-experimental. They found that the village fund could increase total short-term credit, consumption, income, investment in agriculture, but it could decrease the growth of the overall assets. Kaboski and Townsend (2012) concluded that people's ability to access credit could increase their consumption.

The model of Kaboski and Townsend (2012) showed that lending could enhance business sector and labor market but did not improve the farm incomes. Nevertheless, there was no change in the level of business investment and the number of new businesses. Meanwhile, the amount of investment in agriculture increased and the frequency of using fertilizers decreased but the income did not increase. Kaboski and Townsend (2011) found that some households acknowledged that they got higher benefits after using the village credit than the costs to get that credit (Kaboski and Townsend (2011) used a cost-benefit analysis). In fact, according to the analysis of Kaboski and Townsend (2011), generally, the cost of obtaining village credit is 30 percent higher than the total benefits. These phenomena provide a question about the impact of credit in Indonesia, especially informal credit.

Related to the issue, Gertler, Legine, and Moretti (2009) tried to identify how the microfinance helped to overcome the shock on health in Indonesia (Gertler, Legine, and Moretti (2009) used the data provided by Bank Rakyat Indonesia (BRI)). They found that microfinance managed by *Bank Rakyat Indonesia (BRI)* might help people, especially in overcoming the shock on health. From the previous studies of credit, there were still no studies that identified the impact of using semi-formal and informal credits to the welfare of the Indonesian community. It is necessary to identify the effect of the provision of semi-formal and informal credits on Indonesian society. It is because the scheme of networking between formal and informal financial institutions, especially in Indonesia, has different characteristics from other countries. In categorizing financial institutions in Indonesia, this study referred to Ledgerwood (1999). *Baitul Maal wattamwil* (BMT) and cooperative in Indonesia are classified as semi-formal financial institutions; *mindhring*, and *bank plecit* are categorized as informal financial institutions.

3. Methodology

3.1. Model

In analyzing the impact of the use of semi-formal and informal credits, it is significant to find counterfactual, i.e the conditions that will occur when someone does not use those credits. However, this study does not have a counterfactual. Therefore, the Randomized Control Trial (RCT) method could not be applied in the analysis. If the analysis compares the group of semi-formal or informal credit users to formal credit recipients, that comparison will lead to selection bias. This case is because informal credit users are households or individuals who do not have access to formal credit. For instance, it may because they do not have capital that can be used as collateral.

Potential bias will occur if there are some households' characteristics that are unobserved and time-invariant that can affect the outcome. One example is the different preferences of each household to the use of credit resources. Additionally, bias can occur due to the differences in the availability of formal and informal institutions. Therefore focused on the problem of bias in regional differences, this study used a fixed effect at the village level to determine the effect of using credit sources by households to the welfare proxied in variable consumption per household (variable C_{it}). The level of villages was proxied by information of the enumeration area on IFLS data as used in Dwiputri (2017). This village fixed effects method can omit bias in estimation. Some studies (Yamauchi, 2005; Gertler & Molyneaux, 1994; Heckman & Robb, 1985; Pitt, Khandker, McKernan, and Latif, 1999) used fixed effect estimator to eliminate the constant of characteristics between communities from time-1 to time-2.

This study used panel data to capture the changes in people's consumption from two periods, namely in 2000 and 2007 (IFLS 5 (2014) has been available, but some information that is related the semi-formal credit has not been published yet). The research model is as follows.

$$C_{ijt} = \alpha_0 + \beta_1 Credit_{ijt} + \beta_2 X_{ijt} + \beta_3 Z_{ijt} + \beta_4 Y_{ijt} + {}_j + v_{ijt}, \tag{1}$$

The C_{ijt} variable determines the consumption of household-i, village-j, and year-t. The Credit variable is declared in the form of a *dummy*. *Dummy* 0 represents the households that did not use semi-formal or informal credit. *Dummy* 1 represents the households that used semi-formal or informal credit. Control variable in the model is represented by household characteristics (X_{ijt}) variables, i.e residence characteristics (Z_{ijt}) and credit characteristics (Y_{ijt}) variables. The μ_j becomes a *fixed effect* at the village level. Meanwhile, the v_{ijt} variable is an *error term*. The *error term* is assumed

that it does not correlate with credit variable, after being controlled by *village fixed effect*.

3.2. Data

This study used *The Indonesia Family Life Survey* (IFLS) data that were collected by RAND *Corporation*. *The Indonesia Family Life Survey* (IFLS) is a longitudinal survey on socio-economic and health. This survey collects individual data, including household and community, and social and economic facilities used by the public, such as health and education facilities (According to Strauss, Witoelar, Sikoki, and Wattie (2009), the first wave of survey (IFLS 1) was conducted in 1993, which covered 7244 households. The second wave of the survey (IFLS2) was conducted in 1997 and carried out returned surveys (IFLS2 +) in 1998. The third wave of the survey (IFLS3) was fully implemented in 2000. Furthermore, IFLS4 was conducted in late 2007 to early 2008 with the same respondents in 1993 as many as 13 535 households and 44 103 individuals). *The Indonesia Family Life Survey* (IFLS) data used in this study were panel data from IFLS3 (2000) and IFLS4 (2007) that capture the period before and after the use of credit facilities from semi-formal and informal financial institutions. The IFLS5 (2014) data still cannot be used in this study because there are some incomplete data. The outcome observed in this study was the change in the consumption of food, non-food, and total spending per capita consumption expenditure related to the effect of the use of semi-formal or informal credit (The data that used in the analysis were converted into real value using Gross Domestic Product (GDP) deflator, provided by the World Bank).

4. Discussion

The number of informal credit funds received last year 2000 by each household on the average was approximate IDR. 461,000. The amount of semi-formal credit funds received by each household in the last year 2000; on the average, was approximate Rp. 1,005,000. The average period of using informal credit on average was 5.79 months and for semi-formal credit is approximately 9.9 months.

In 2007, the average number of informal credit funds used by households was IDR. 656,000; and the standard deviation was IDR. 2.008 million. It means that the use of informal credit had a high standard deviation. Meanwhile, the average amount of semi-formal credit loan was IDR. 1.948 million, while the standard deviation was about IDR. 4.23 million. The average period of loan used by households from informal financial

institutions was 7.55 months, and the average loan period of semi-formal financial institutions was 13.42 months. It illustrate that both in the year 2000 and 2007, the amount and the period of semi-formal credit were higher than informal credit. Also, the number of users of informal credit was more than semi-formal credit. The number of users of semi-formal and informal credit was more than formal credit. The total number of the use of informal credit decreased from 2000 to 2007. Contrary, the use of formal credit increased.

The data showed that the amount of formal credit was higher with a longer loan period compared with semi-formal and informal credits. The data also showed that the households with lower levels of spending and lower level of education of household head widely used informal credit than semi-formal credit. The age of the household head and the number of household members did not have a significant difference between the users of semi-formal and informal credits. The results of village fixed effect regression analysis are tabulated in the Table 1.

TABLE 1: The Impact of the Use of Credit on Household's Food Consumption Expenditure (ln_real consumption, base: 2000) Panel Data

Variable	Food Consumption			
	(1)	(2)	(3)	(4)
Characteristic of Credit:				
The Use of informal credit (1=use informal credit)	0,00	-0,15***	-0,13***	-0,11***
The Use of semi-formal credit (1= use semi-formal credit)	0,06**	-0,11***	-0,11***	-0,10***
The amount of credit, thousand rupiahs (Ln)		0,01***	0,01***	0,01***
Period of credit (month)			-0,00	0,00
The purpose of credit (1=Productive)				0,07**
Characteristic of Household:				
HH head age (year)	0,00***	0,00***	0,00***	0,00***
Gender of HH Head (1=male)	0,15***	0,15***	0,15***	0,15***
HH member	0,12***	0,12***	0,12***	0,12***
Education of HH Head (year)	0,04***	0,03***	0,03***	0,03***
Characteristic of residence:				
Residence (1= rural)	-0,10***	-0,10***	-0,09***	-0,09***
R^2 (%)	25,26	25,68	25,67	25,67
N	16208	16205	15936	15897

Source: calculated panel data, 2017

Note: ***: significant at α=1%; **: significant at α=5%; *: significant at α=10%

The household characteristics such as the age of the household head, gender, and education, as well as the amount of household member have a positive influence on food consumption expenses. Nevertheless, the significance of the age variable had a

minimal effect, and it could be ignored. The amount of household member had a positive influence because the more family members, the level of demand and expenses would increase as well. The male household head had higher food consumption expenditure levels than those headed by women. This could be due to their income from two adults in the case family, the father, and the mother. Meanwhile, in the households headed by women because they did not have a father, the main income only came from mother (This phenomenon can actually be a matter for further research, which is how is the role of father or mother as parents in a household).

TABLE 2: The Impact of the Use of Credit on Household's Non-Food Consumption Expenditure (ln_real consumption, base: 2000) Panel Data

Variable	Non-Food Consumption			
	(1)	(2)	(3)	(4)
Characteristic of Credit:				
The Use of informal credit (1=use informal credit)	-0,09***	-0,35***	-0,32***	-0,30***
The Use of semi-formal credit (1= use semi-formal credit)	0,06**	-0,23***	-0,21***	-0,19***
The amount of credit, thousand rupiahs (Ln)		0,02***	0,02***	0,02***
Period of credit (month)			0,00	0,00
The purpose of credit (1=Productive)				0,10***
Characteristic of Household:				
HH head age (year)	0,00***	0,00***	0,00***	0,00***
Gender of HH Head (1=male)	0,02	0,02	0,02	0,02
HH member	0,13***	0,13***	0,13***	0,13***
Education of HH Head (year)	0,08***	0,07***	0,07***	0,07***
Characteristic of Residence:				
Residence (1= rural)	-0,25***	-0,24***	-0,24***	-0,24***
R^2 (%)	34,05	34,87	34,91	34,87
N	16208	16205	15936	15897

Source: calculated panel data, 2017

Note: ***: significant at α=1%; **: significant at α=5%; *: significant at α=10%

The household head's education level had a significant positive effect on food consumption expenses. The household head with higher education had a higher probability anyway of getting an income and better livelihood (Dartanto and Otsubo, 2013). Duflo (2001) also revealed that the education program in Indonesia could increase revenue and prosperity. It could be the reason why the household head's education level had a significant positive effect on food consumption expenses. The analysis also indicated that the residences of households that stayed in villages had a significant adverse impact on the consumption of food than those, who lived in urban areas. This case

could occur because of the habit of giving foods. Besides, the urban population usually has a high standard of living compared to the rural population.

TABLE 3: The Impact of the Use of Credit on Household's Total Consumption Expenditure (ln_real consumption, base: 2000) Panel Data

Variable	Total Consumption			
	(1)	(2)	(3)	(4)
Characteristic of Credit:				
The Use of informal credit (1=use informal credit)	-0,05**	-0,25***	-0,22***	-0,20***
The Use of semi-formal credit (1= use semi-formal credit)	0,05**	-0,17***	-0,16***	-0,14***
The amount of credit, thousand rupiahs (Ln)		0,02***	0,02***	0,01***
Period of credit (month)			-0,00	0,00
The purpose of credit (1=Productive)				0,09***
Characteristic of Household:				
HH head age (year)	0,00***	0,00***	0,00***	0,00***
Gender of HH Head (1=male)	0,09***	0,09***	0,09***	0,09***
HH member	0,12***	0,12***	0,12***	0,12***
Education of HH Head (year)	0,05***	0,05***	0,05***	0,05***
Characteristic of residence:				
Residence (1= rural)	-0,16***	-0,16***	-0,15***	-0,15***
R^2 (%)	34,56	35,30	35,31	35,29
N	16208	16205	15936	15897

Source: calculated panel data, 2017

Note: ***: significant at α=1%; **: significant at α=5%; *: significant at α=10%

Based on multiple regression analysis results, it can be concluded that using semi-formal and informal credits caused a negative impact on the food consumption expenditure. Loan repayment period selected by household had no significant effect. Meanwhile, the amount of credits had a significant positive effect on food consumption expenses. This case showed that the greater the amount of credits earned, the higher the consumption was. That is, the amount of credit can be a significant favorable influence on the improvement of public welfare. The credits taken for productive purposes also gave a significant positive effect on the increase in food consumption expenditure than the credits only used for consumptive purposes.

Table 2, 3, and 4 show the results of analysis of the influence of semi-formal and informal credits to the betterment of society. Therefore, in general, it can be concluded that the use of semi-formal and informal credits has a significant negative effect on the improvement of public welfare, compared to formal credit. This case is because the very high-interest rate of semi-formal and informal credit cannot help people in improving their welfare. The more amounts of loans granted to the society, the higher its impact

TABLE 4: The Impact of The Use Informal Credit on Per Capita Expenditure (ln_real consumption, base: 2000) Panel Data

Variable	Consumption Per Capita			
	(1)	**(2)**	**(3)**	**(4)**
Characteristic of Credit:				
The Use of informal credit (1=use informal credit)	-0,06***	-0,24***	-0,21***	-0,20***
The Use of semi-formal credit (1= use semi-formal credit)	0,04	-0,16***	-0,15***	-0,14***
The amount of credit, thousand rupiahs (Ln)		0,02***	0,02***	0,01***
Period of credit (month)			0,00	0,00
The purpose of credit (1=Productive)				0,08***
Characteristic of Household:				
HH head age (year)	0,00***	0,00***	0,00	0,00
Gender of HH Head (1=male)	-0,03*	-0,03**	-0,03**	-0,03**
HH member	-0,13***	-0,13***	-0,13***	-0,13***
Education of HH Head (year)	0,05***	0,05***	0,05***	0,05***
Characteristic of residence:				
Residence (1= rural)	-0,20***	-0,20***	-0,20***	-0,19***
R^2 (%)	29,98	30,59	30,55	30,51
N	16208	16205	15936	15897

Source: calculated panel data, 2017

Note: ***: significant at α=1%; **: significant at α=5%; *: significant at α=10%

on improving people's welfare. Another interesting finding was the credit period did not have a significant effect on improving people's welfare. Credit productive purposes had a more positive effect than credit for consumptive purposes.

Generally, in Indonesia, formal credit has an interest rate ranging from 7.5% up to 13%. Meanwhile, the semi-formal credit interest rate is approximately 20%, and informal credit ranges from 50% or more (Pradiptyo, Sugiyanto, Sumiyana, and Dwiputri, 2013). The high lending interest rates are quite troubling the user of semi-formal and informal credits. However, credit demand is inelastic to interest rates (Bell, Srinivasan, and Udry, 1997), for poor and vulnerable households. They do not usually have other options for means of consumption smoothing.

5. Conclusion

The use of semi-formal and informal credits may have a negative effect on the welfare of society, compared to the formal credit. This is presumably because of the high-interest rate of semi-formal and informal credit. The higher the number of credits the

more positive influence on improving the welfare of the community. In addition, the use of credit on productive purpose has a positive influence on improving the welfare of the community. Therefore, the government and public institution are expected to disseminate the use of formal credit to the public.

In Indonesia, many households use semi-formal and informal credits because they do not understand the interest rates prevailing at semi-formal and informal credit systems. The public only understands the value of money that must be paid every month or every week to the credit provider. Also, the government and credit providers need to encourage credit users to use credit for productive purposes than consumption, because it can increase the welfare society. The semi-formal sharia credit system may have the same influence because the profit sharing is relatively same as the non-sharia credit system. However, the impact of the sharia credit compared to the non-sharia credit needs to be identified in further research.

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