Response on New Credit Program In Indonesia: An Asymmetric Information Perspective*

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Abstract

The Indonesian government launched a new people's business credit program as part of a package of economic policy and deregulation. The interest rate is set lower than the average of the current loan interest rates, especially when compared with rural bank interest rates. To capture the social spatial aspects, quota sampling is applied to ten areas that divided based on the social culture. Further, the method utilized in this research is logit models, which designed to analyse the determinants of asymmetric information particularly on the rural bank and small micro enterprises. The study was conducted in East Java as the province with the largest number of rural banks in Indonesia. Based on the estimation of asymmetric information model to the respondent of rural banks and small businesses, the result shows that adverse selection can be avoided by strengthening the information about prospective borrowers. Regarding moral hazard, rural banks and small businessmen argued that the imposition of the collateral to the debtor has an important role to avoid moral hazard. Rural bank respondents stated that the KUR program with low-interest rates has affected their business development. The results implied the need of broadening the collaboration schemes between this people's business credit program and rural banks.

Keywords: Credit Program, Asymmetric Information, Rural Bank, Indonesia.

JEL Classification Code: E51, D82, G21.

1. Introduction

Micro, Small and Medium Enterprises have a role and a very important contribution to the Indonesian economy. Based on data from the statistics bureau (Badan Pusat Statistik or BPS) in 2012, the number of SMEs in Indonesia reached 56.5 million units with the employment of about

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90.9 million workers. SMEs contribution to GDP reached 57.12% or about 1,504 trillion and it is able to absorb 107 million workers. SMEs is widespread in the rural areas and can play an important role as the starting point of rural development (Tambunan, 2008).

Other potential of SMEs are a manufacturer of consumer goods in the country and as a cheaper substitute of imported goods, especially for lower income groups, and as well as support for large industries (Tambunan, 2005). Various policy initiatives for these types of businesses started in 1969 (Hill, 2001), and showed an increase in productivity and proved to able to respond more quickly and flexibly to sudden shocks than large businesses during the Asian crisis (Berry, Rodriguez, & Sandee, 2001).

In line with the number of business units and the potential of SMEs, it required the financial institutions that are able to reach and provide financing for this type of business. Financial systems of developing countries are generally characterised by the existence of two sectors, namely the formal and informal financial sectors. The formal financial sector is oriented to the modern urban, while the informal

financial sector is more flexible, ease in transaction, and emphasis on individual relationships (Mehrteab, 2005).

A group of small businesses in developing countries has limited access to obtain formal credit. For some things, it is due to lack collateral, and the difficulty of enforcing repayment (Besley, 1994). Financial institutions which are able to provide financing to a group of low-income borrowers in developing countries is a microfinance institutions engaged in the subsidized. Microfinance institutions can be categorised into two groups, which are involved in providing direct loans to individual borrowers, and which provide loans only to individuals who organise themselves in groups.

Late 19th century, Indonesia was famous in the world of microfinance institutions. Bank Rakyat Indonesia (BRI) was successful in conducting transformation of microfinance institutions engaged in the subsidised agricultural sector to become a large-scale commercial bank (Henley, 2010; Toth, 2013). The performance of BRI showed important features in the design of microfinance institutions that sustained during the East Asian crisis (Patten & Johnston 2001). While another agency is Rural Bank (RB), RB is a commercial bank and secondary bank that is expected to play a central role in the field of small-scale finance for micro, small, and medium businesses economically active in Indonesia (Charitonenko & Afwan, 2003; Hamada, 2010).

Law No 20 of 2008 on Micro, Small and Medium Enterprises, mandates the Indonesian government to foster a business climate which was related to funding. Funding policies aimed at expanding access to funding sources. In line with the mandate of the government launched the people's business credit (Indonesia: Kredit Usaha Rakyat or KUR) in 2007. KUR claimed by the government as a successful program, in terms of the amount of funds channelled banking, which is about RP 178 trillion, and absorb a workforce of around 20 million people.

Indonesian government's attention to the KUR then continues through the improvement of regulations and improvement schemes. The government launched a new KUR program as part of a package of economic policy and deregulation. The program was launched in October 2015. There is a rule change compared to the previous KUR program, among others, about the participating banks and the interest rate applied to the small and medium entrepreneurs. KUR new interest rate is 9%, while the previous is up to 24% effective rate for micro KUR, and 16% for retail KUR. Target distribution of KUR funds amounts to Rp 100 trillion to Rp 120 trillion of bank funds. Among several programs for entrepreneurs in Indonesia, KUR in the category of soft loans on a macro level with a target of additional capital or entrepreneurial infrastructure improvements (Mirzanti, Simatupang, & Larso, 2015).

Loans in developing countries, especially loans for micro and small businesses, are affected by information asymmetry between borrowers and lenders that caused adverse selection and moral hazard (Behr, Entzian, & Guettler 2011; Stiglitz & Weiss, 1981). Despite the fragmentation of the market and the lack of adequate information about potential borrowers (Conning & Udry, 2007), a financial intermediary is expected to handle.

Some studies contribute to the empirical evidence of the intensity of the relationship between banks and borrowers as a driver of access to credit, as well as examining the influence of financial access relationships and conditions of the loan in the scale of microcredit in developing countries. Asymmetric information between lenders and borrowers plays a key role in the development of the theory of financial intermediation. If the borrower cannot reliably reveal the future prospects of the business, then the lender will have to invest in expensive information to assess their eligibility, so there is no adverse selection. Even if a company after being given a loan, the lender must expend resources in monitoring the borrower so there is no moral hazard (Bharath, Dahiya, Saunders, & Srinivasan, 2011).

Based on the data of Financial Service Authority (FSA), East Java had the highest number of rural banks in 2014 compared to other provinces in Indonesia, namely the 325 rural banks with a network of offices as much as in 1225.The high-interest rate credit when juxtaposed with an interest rate of 9 % KUR will certainly have repercussions on the BPR (RB). In terms of business, low-interest rates are expected to be able to access the KUR better.

The purposes of this research is to investigate the response of micro, small enterprises and rural bank on the ability of the participating banks in implementing KUR with the new scheme and new interest rate in the perspective of asymmetric information. The perspective of asymmetric information observed is a probability of adverse selection and moral hazard. Outline of research begins with the first part of the background and review of literature related to asymmetric information. The second part is the sampling method and the research methods of a specification of the model. The last part is the description of the respondent, the estimation models, interpretations, and conclusions.

2. Literature Review

Studies on the occurrence of adverse selection of asymmetric information in the form of bank credit to the credit rationing due to imperfect information carried by Stiglitz and Weiss (1981). Banking in conducting intermediation is expected to minimise the cost of information (Diamond, 1984), and was able to reduce the

occurrence of asymmetric information through the process monitor and the reputation of the borrower (Diamond, 1991; Ramakrishnan & Thakor, 1984). Asymmetric information has a considerable effect when a small company are new, which explains why they find it difficult to accumulate money in the public markets (Petersen & Rajan, 1994).

Modern literature focuses primarily on the financial intermediation role of banks in developing a close relationship with the borrower over time. The closeness between the bank and the borrower is prepared to facilitate the monitoring and screening, so it was expected to address the problem of asymmetric information (Boot, 2000). The relationship with the borrower is defined as a long-term implicit contract between the bank and the borrower because of the production of information and repeated interactions with borrowers from time to time, the bank with the relational ties able to collect personal information, and establish a close relationship between banks and borrowers (Elsas, 2005).

The intensity of the relationship between banks and borrowers resulting micro lenders receives sufficient information so that it will increase the likelihood of loan approval. Relationships and better information will speed up approvals and reduce the use of collateral, and it is very profitable for the new borrower and small entrepreneurs (Behr, Entzian, & Guettler, 2011). Berger and Udell (2006) showed the importance of information technology in various aspects of financing for small micro enterprises. Information obtained among others through contact between the bank officers, with small business owners and local communities.

Technical factors become one of the success factors of intermediary institutions, good relationship to the providers of essential financing to overcome information asymmetries and improve the quality of service (Hauswald & Marquez, 2006; Pedrosa & Do, 2011; Presbitero & Rabellotti, 2014), and the geographical separation of infrastructure reduces spatial access to microfinance services (Khan & Rabbani, 2015). Sufficient bank clerks to overcome the problem of service distance become the concerns of researches (Cerqueiro, Degryse, & Ongena, 2009; Alessandrini, Fratianni, & Zazzaro, 2009; Udell, 2009). Good relationship between lenders and borrowers with their local informants (Chaves & Gonzalez-Vega, 1996), local financial contracts (Conning & Udry, 2007), or through other social mechanisms (Yaron, 1994).

The importance of physical collateral also was a factor in the success of microfinance institutions, in dealing with asymmetric information (Berger & Udell, 1990; Menkhoff, Neuberger, & Rungruxsirivorn, 2012). Some cases of micro-scale lending in Indonesia showed that although ownership of collateral was not an important determinant of participation, relatively wealthy families gain access to

micro-credit (Takahashi, Higashikata, & Tsukada, 2010). Aspects of monitoring also are part of the success of credit programs (Diamond, 1991; Ramakrishnan & Thakor, 1984; Copestake, Bhalotra, & Johnson, 2001).

Many researchers have made Indonesia be a target of research success of microcredit. The theme includes about subsidies and interest rate cost (Yaron, 1994; Chaves & Gonzalez-Vega, 1996). The success of BRI and other small loan Institutions (Patten & Johnston, 2001; Charitonenko & Afwan, 2003; Hamada, 2010; Henley, 2010; Toth, 2013), up to entrepreneurship policy mapping has been done (Mirzanti, Simatupang, & Larso, 2015). Research on the behaviour of small loans using surveys has been conducted by Bauer, Chytilová, and Morduch (2012), with a limited number of respondents (Presbitero & Rabellotti, 2014). The functions of the logistic model in the field study of microcredit among others have been conducted by Presbitero and Rabellotti (2014), Elsas (2005), Bharath et al. (2011), and Behr, Entzian, and Guettler (2011).

2.1. Factor Affecting Asymmetric Information

The concept study was to evaluate the response of RB managers and small businesses, MSE (Micro, Small Enterprises) to the existence of KUR with the rules and a new interest rate, related to asymmetric information. Literature review used to be the basis of the perception of both parties to the possibility of adverse selection and moral hazard. The literature review is used to underlie the response from both parties on the possibility of adverse selection and moral hazard. The response of MSE and RB to the occurrence of adverse selection and moral hazard associated with several factors that influence the success of small microcredit. Adverse selection with respect to the ability of banks to extend credit to the appropriate borrowers before the transaction is done, while the moral hazard associated moral injury arising after the transaction occurs, or after the loan granted to the borrower.

Adverse selection associated with (1) adequate information about the condition of the borrower, which derives from the intensity of the relationship between banks and borrowers (Boot, 2000; Elsas, 2005; Berger & Udell, 2006; Behr, Entzian, & Guettler, 2011); (2) the technical aspects related to the availability of infrastructure and the ability of banks to reach prospective borrowers (Cerqueiro, Degryse, & Ongena, 2009; Alessandrini, Fratianni, & Zazzaro, 2009; Udell, 2009), and (3) the use of other institution to strengthen information about the condition of prospective borrowers, for example, with the help of information from the village institute or informants in the area (Chaves & Gonzalez-Vega, 1996; Conning & Udry, 2007; Yaron, 1994).

Moral hazard associated with (1) the role of physical collateral or collateral in reducing the chance of moral hazard (Berger & Udell, 1990; Menkhoff, Neuberger, & Rungruxsirivorn, 2012); (2) monitoring of the sustainability of tighter credit as it will harm the bank in case of moral hazard (Diamond, 1991; Ramakrishnan & Thakor, 1984; Copestake, Bhalotra, & Johnson, 2001); and (3) adequate information about the condition of the borrower, which derives from the intensity of the relationship between banks and borrowers (Boot, 2000; Elsas, 2005; Berger & Udell, 2006; Behr, Entzian, & Guettler, 2011). Further analysis is likewise associated with certain characteristics, such as demographic characteristics and assets ability categories.

3. Research Methods

3.1. Sampling Technique

To capture the social spatial aspects, quota sampling is apllied. Based on the areas of the social culture there are 10 regions in East Java province: Arek, Mataraman, Pandalungan, Osing Tengger, Panaragan, Madura Island, Madura Kangean, Madura Bawean, Samin (Susanti & Ardhanari, 2015). Modification of sampling is conducted, Madura made into one region. Pandalungan and Osing into one region, while the Tengger and Samin considered less relevant. Arek region split into two, namely Arek and Pantai Utara. Ultimately 11 (eleven) districst or cities elected as follows: Arek (Sidoarjo, Surabaya City), Mataraman (Kediri City, Kediri), Pantai Utara (Lamongan, Gresik), Madura (Bangkalan, Pamekasan), Pandalungan (Probolinggo City, Probolinggo), and Panaragan (Ponorogo).

Sample data RB derived from the FSA, while MSE Respondents are entrepreneurs whose businesses are included in the MSE data centres that recorded in the Department of cooperatives and MSE of East Java province. Sampling of RB in each area, adjusted proportionally to the number of existing RB. RB sample is half of the number of RB in each region. It is also adjusted proportionally to the number of existing Islamic RB. Sampling was conducted through questionnaires and interviews from May to October 2016. Target respondents 72 RB, reached 62 RB who were interviewed or respond to the questionnaire given. Number of MSE, in accordance with the initial target of two times the number of RBs for each region, so determined amounted to 124 MSE.

3.2. Model Specifications

We employ a logit model. This model is based on a logistic cumulative probability function (Robert and Daniel, 1998), or the logistic distribution function (Gujarati, 2009). The parameter estimation method used is the Maximum Likelihood (Wooldridge, 2015). In binary response model, the attention lies primarily in the response probability.

$$P(y = 1|x) = P(y = 1|x_1, x_2, \ldots x_k)$$

x to denote the entire lot of explanatory variables, and

$$G(z) = \exp(z)/[1 + exp(z)] = \Lambda(z) = P_i$$

Which G is the logistic functions, and between zero and one for all real number z, then

$$ln\left(\frac{P_i}{1 - P_i}\right) = z = b_1 x_1 + b_2 x_2 + \cdots$$

There are four logit models were formed, namely two models for adverse selection, and two models for moral hazard. Four models are to be used to analyse rural bank response and the response of MSE. Response rural bank is the perception of the possibility of adverse selection and moral hazard in the KUR conducted by the participating banks KUR. The response of MSE is the MSE's perception of the possibility of adverse selection and moral hazard in the KUR, conducted by the participating banks KUR. The description and definition of variables present in Appendix (Table A).

Adverse Selection Rural Bank (ASRB) model:

$$L\,ASRB_i = \left(\frac{P_i}{1 - P_i}\right) = \beta_1 + \beta_2\text{RBINFO} + \beta_3\text{RBTC} + \beta_4\text{RBINS} + \beta_5\text{RBAS} \\ + \beta_6\text{RBREG} + \beta_7\text{RBC} + u_i$$

Moral Hazard Rural Bank (MHRB) model:

$$L\,MHRB_i = \left(\frac{P_i}{1 - P_i}\right) = \beta_1 + \beta_2\text{RBCOL} + \beta_3\text{RBMON} + \beta_4\text{RBINFO} \\ + \beta_5\text{RBAS} + \beta_6\text{RBREG} + u_i$$

Adverse Selection Micro Small Enterprises (ASMS) model:

$$L\,ASMS_i = \left(\frac{P_i}{1 - P_i}\right) = \beta_1 + \beta_2\text{MSINFO} + \beta_3\text{MSTC} + \beta_4\text{MSINS} \\ + \beta_5\text{MSAS} + \beta_6\text{MSREG} + \beta_7\text{EDC} + u_i$$

Moral Hazard Micro Small Enterprises (MHMS) model:

$$L\,MHMS_i = \left(\frac{P_i}{1-P_i}\right)$$
$$= \beta_1 + \beta_2\,MSCOL + \beta_3\,MSMON + \beta_4\,MSINFO$$
$$+ \beta_5\,MSAS + \beta_6\,MSREG + \beta_7\,EDC + u_i$$

A number of questions posed to the rural banks to deepen the study of perception related to KUR. The questions are:

1. Will the KUR with low-interest rates hamper the development of RB efforts?
2. Will the customer credit (financing) be switched to the people's business credit with low-interest rates?
3. Does RB have adequate information about a prospective borrower of SME, compared public Bank?
4. Is RB easier to troubleshoot moral hazard in credit, than a public bank?
5. Will the people's business loan program be better if worked together with RB?

4. Research Results

4.1. Description and Estimation of Rural Bank Model

4.1.1. Description of Rural Bank Respondents

Most respondents came from the city of Surabaya and Sidoarjo as much as 27 respondents (45.1%), followed by the town of Kediri, Kediri Regency, and as many as 14 respondents (22.6%). 80.6% of that amount, or 50 respondents, was the RB conventional, while the rest as many as 12 respondents (19.4%) is RB Shariah. The assets of most respondents are between Rp 10 million to less than 50 million, as much as 32 respondents (32.1%), then that is less than Rp 10 million by as much as 19 respondents (30.6%). Most respondents positions are the head of divisions as many as 21 respondents (33.9%), followed the Director as much as 16 respondents (25.8%). Most business sectors financed by the respondent is a trade RB (49.1%), then agriculture (16.1%). Business constraints faced today is the competition between financial institutions (51.6%), with the main competitor is a commercial bank non-BPD (51.6%), followed by microfinance institutions such as BMT and cooperatives (29.0%)

4.1.2. Estimation of Rural Bank Model

Estimation models of asymmetric information for RB consist of two models namely model of adverse selection and moral hazard models. For the model of adverse selection, in the upper side of Table 3 there are three alternative models. The estimation result of the column (2)

show the three aspects studied, namely (a) the adequacy of information held by banks on the condition of the debtor, (b) technical personnel and means to reach out to prospective borrowers, and (c) assistance from other agencies to find out information about candidate debtor, jointly influence the perception of the ability of the participating banks KUR avoid the occurrence of adverse selection (Table 1).

Table 1: Rural Bank Model Estimation

Model I – Adverse Selection Rural Bank Model				
Dependent Variable: ASRB				
		(1)	(2)	(3)
C		-1.682 *	-2.131 *	-2.386 *
	Std. Error	0.666	0.818	0.884
RBINFO		1.375 *	1.475 *	1.413 *
		0.678	0.698	0.716
RBTC		1.742 *	1.717 *	1.725 *
		0.727	0.738	0.791
RBINS		-	0.694	0.710
			0.639	0.690
RBAS		-	-	0.302
				0.746
RBREG		-	-	0.790
				0.682
RBC		-	-	-0.512
				0.787
McFadden R-squared		0.220	0.234	0.262
Prob(LR statistic)		0.000	0.000	0.001
* significant at 5%			Total obs	62
Model II – Moral Hazard Rural Bank Model				
Dependent Variable: MHRB				
		(1)	(2)	(3)
C		-1.043 **	-0.848	-1.618
	Std. Error	0.632	0.675	0.690
RBCOOL		1.228 *	1.326 *	1.489 *
		0.620	0.640	0.664
RBMON		1.782	0.934	0.702
		0.619	0.654	0.633
RBINFO		-	-0.554	-
			0.643	
RBAS		-	-	-0.601
				0.612
RBREG		-	-	-0.779
				0.585
McFadden R-squared		0.088	0.097	0.119
Prob(LR statistic)		0.026	0.044	0.042
* significant at 5%				
** significant at 10%			Total obs	62

Probability (LR stat) indicates the number 0.000, the rejection of H_0, meaning all independent variables jointly affect the dependent variable. McFadden R-squared value indicates the number 0.234, meaning a variety of independent variables (RBINFO, RBTC, RBINS) is able to explain the variation of the variable ASRB, amounting to 23.4%. Two variables: RBINFO and RBTC, or adequacy of information and technical personnel, which statistically has a value of marginal significance level (p-value) under 0.05. It shows that the two variables that have a partial effect on the ASRB.

Column (1) is an alternative model (2) by removing variable RBINS. The two independent variables, namely RBINFO and RBTC, individually significant influence the dependent variable, ASRB, it is indicated from the probability of z-statistic that less than 0.05. While simultaneously having the probability (LR statistics) less than 0.05, that mean both RBINFO and RBTC significantly affect ASRB, or in other words, the aspect of the adequacy of information and technical personnel affects the ability of banking avoid adverse selection together.

Column (3) is an unrestricted model to model adverse selection the RB. In addition to the aspect of the adequacy of information, the technical aspects, and aspect of other institutions help, by entering a certain demographic and characteristics factors. These factors are the characteristics of assets, RBAS; regional characteristics, RBREG; and types of rural bank, conventional or Shariah, RBC. Estimation model of a column (3) shows that only the variable RBINFO and RBTC, or aspects of the information and the technical aspects are significant variables affecting the ASRB. The aspects of the information help from other agencies, the RB characteristics, and the types of regional assets, have no significant effect.

Test restriction (Wald test) was conducted to see whether the variable characteristics (RBAS, and RBREG) has an impact on the MHRB, when other variables are controlled. It is known that the characteristic variables jointly insignificant against moral hazard. Conclusion for the model II consists of three alternative models was, two variables they are RBINFO and RBTC, consistent influence ASRB. Meaning that the imposition of a guarantee that affect the ability of channeling KUR will avoid moral hazard.

Moral hazard estimation model for RB (MHRB), were at the bottom of table 1. The model is constructed to connect between (a) RBCOL, the imposition of a guarantee, (b) RBMON, more stringent monitoring and (c) RBINFO, sufficient information about the debtor before receiving the credit, with the possibility of avoiding moral hazard. As with any model of adverse selection, moral hazard models is also presented in three versions that produce good statistics LR, which is jointly independent variables affect the

dependent variable. Column (2) Model II shows that of the three independent variables are used, only RBCOL variable, or the role of collateral that significantly affect MHRB. Column (1) Model II, using only two variables, namely RBCOL and RBMON, the results obtained are consistent with the column (2) that only one variable is significant, namely RBCOL.

Column (3) Model II, is an alternative model by putting down the assets and demographic characteristics. RBAS showed above-average asset, while the RBREG shows the area of origin of the provincial capital and surrounding areas (Surabaya City and Sidoarjo). The unrestricted models indicate there is a significant variable that is RBCOL. Test restriction (Wald test) was conducted to see whether the variable characteristics (RBAS and RBREG) have an impact on the MHRB, when other variables are controlled. It is known that the characteristic variables jointly insignificant against moral hazard. A conclusion of model II consisting of three alternative models was one variable (RBCOL) that affects ASRB consistently. Its meaning is the imposition of a guarantee that affects the ability of channelling KUR avoid moral hazard.

Conclusion for model estimation RB is, in some alternative models of adverse selection, there are two variables that consistently, either individually or jointly, significantly affect the dependent variable. The variables are aspects of the information gathered, and the technical aspects, such as inadequate facilities and technical personnel owned bank. Both significantly affect the perception of the ability of the participating banks KUR to avoid adverse selection. Estimated RB models of several alternative models of moral hazard, there is one variable that is consistent, namely the imposition of collateral. The variables are consistently significant individually or collectively affect the perception of the ability of channelling KUR to avoid moral hazard. Both adverse selection and moral hazard models, asset characteristics and regional characteristics have no effect.

4.2. Description and Estimation of Micro Small Enterprises Model

4.2.1. Description of MSE Respondents

Proportional to the number of RB, MSE performance of the respondents, mostly came from Surabaya and Sidoarjo as many as 54 respondents (43.5%), followed by Kediri City and Kediri Regency as many as 28 respondents (22.6%). Most respondents ages 40-49 years as many as 49 respondents (39.5%), and over 50 years as many as 35 respondents (28.2%). Graduates of most respondents are

high school education as much as 55 respondents (44.4%), then the elementary school down as much as 32 respondents (25.8%). Most respondent's business assets in the range of less than Rp 5 million, as many as 52 respondents (41.9%), then the Rp 5 million to less than Rp 50 million as many as 45 respondents (36.3%) (Table 2).

Table 2: Description of Micro Small Enterprises Respondents

Description of MSE Respondents	n	%
	124	100,0
Regency / City		
Surabaya City, Sidoarjo	54	43,5
Kediri City, Kediri	28	22,6
Lamongan, Gresik	22	17,7
Ponorogo	8	6,5
Probolinggo City, Probolinggo	6	4,8
Bangkalan, Pamekasan	6	4,8
Age		
>50	35	28,2
40-49	49	39,5
30-39	32	25,8
< 30	7	5,6
No Answer	1	0,8
Graduated education		
Bachelor to the top	5	4,0
Senior High School	55	44,4
Junior Secondary Schools	31	25,0
Elementary School down	32	25,8
No Answer	1	0,8
Asset (Million Rupiah)		
>100	9	7,3
50 – 100	18	14,5
5 – < 50	45	36,3
< 5	52	41,9

4.2.2. Estimation of MSE Model

Similar to an estimation model for RB, The MSE model also consists of two models, namely models of adverse selection and moral hazard model. To model adverse selection, there are three alternative models on model III. Column (2) indicates that of the three aspects are examined, namely (a) the adequacy of information held by banks to find out the condition of the potential borrowers (b) technical personnel and means to reach potential borrowers, and (c) assistance from other institutions to find out information on potential borrowers, only the sufficiency of information (MSINFO) which significantly affect the ability of the bank avoid the occurrence of adverse selection. Although only one variable is significant, but the probability (LR Stat)

indicates numbers 0.028, meaning independent variable jointly significantly affects the dependent variable (Table 3).

Table 3: Micro Small Enterprise Model Estimation

Model III – Adverse Selection MSE Model				
Dependent Variable: ASMS				
		(1)	(2)	(3)
C		-0.757 *	0.780 *	-0.025 *
	Std. Error	0.703	0.706	0.930
MSINFO		2.580 *	2.606 *	3.370 *
		0.910	0.916	1.038
MSTC		-1.211 *	-1.106 *	-1.070 *
		0.987	1.032	1.176
MSINS		-	-0.234	-0.212
			0.631	0.705
MSAS		-	-	2.201
				1.048
MSREG		-	-	1.019
				0.694
EDC		-	-	-1.268
				0.680
McFadden R-squared		0.094	0.095	0.190
Prob(LR statistic)		0.012	0.028	0.006
* significant at 5%				
** significant at 10%			Total obs	124
Model IV – Moral Hazard MSE Model				
Dependent Variable: MHMS				
		(1)	(2)	(3)
C		-0.843	-0.560	-0.585
	Std. Error	0.519	0.773	0.869
MSCOOL		0.841 **	0.874 *	1.114 *
		0.495	0.500	0.526
MSMON		0.994 *	0.996	0.992
		0.471	0.471	0.485
MSINFO		-	-0.343	-0.114
			0.703	0.749
MSAS		-	-	0.001
				0.495
MSREG		-	-	-0.940
				0.439
EDC		-	-	0.139
				0.411
McFadden R-squared		0.060	0.062	0.094
Prob(LR statistic)		0.008	0.019	0.019
* significant at 5%				
** significant at 10%			Total obs	124

Column (1) is an alternative model in column (2) by removing variable the help of other institutions, MSINS, to prove the relationship between the two main variables, i.e. MSINFO and MSTC with the ability to avoid Adverse selection, ASMS. Together, both these variables significantly affect the probability value of ASMS (LR statistic) of 0.028 or less than 0.05. If the significance of the individual, just the MSINFO variable individually significantly affect to the dependent variables MSAS, it is indicated the probability of z-statistic that less than 0.05.

Column (3) is an unrestricted model of for MSE adverse selection model, by entering a certain demographic and characteristics factors. These factors are the characteristics of assets, MSAS; regional characteristics, MSREG; and education level, EDC. Estimation models of a column (3) show that there are two variables significantly at error level of 5%, i.e. MSINFO, and the characteristics of assets, MSAS; whereas one variable that is characteristic of education significantly at the error level of 10%. It means that, besides the adequacy of information (MSINFO) believed to affect the bank's ability to prevent the occurrence of adverse selection are respondents with the level of assets above average, and respondents with high school education level and above also trust the ability of the bank.

An estimation of moral hazard model for MSE (MHMS), model IV, located at the bottom of table 4. The model is constructed to connect between (a) MSCOL, the imposition of a guarantee, (b) MSMON, tighter monitoring, and (c) MSINFO, adequacy debtor information before receiving credit, the chances of avoiding moral hazard. Moral hazard models presented in three versions that produce the LR models with good statistics are jointly capable of independent variables affect the dependent variable. Column (2) Model MHMS showed that of the three independent variables were used, MSMON variables, significant at error level of 5%, while variable MSCOL, significant at error level of 10%. It means that the imposition of collateral and tighter monitoring has significantly affected the ability of banks to avoid moral hazard.

Column (1) is an alternative to the model of a column (2) by omitting the variable of MSINFO. The results are consistent with the column (2), that the independent variable, MSMON significant at the 0.05 level of error, and MSCOL significant at the 0.10 level of error. The independent variables are jointly significantly to affect MHMS, it means the imposition of collateral, and tighter monitoring significantly affects the ability of the bank to avoid moral hazard. Statistically characterised by a probability value (LR statistics) less than 0.05.

Column (3) is the unrestricted model to model adverse selection MSE, by entering a certain demographic and characteristics factors. These factors are the characteristics of assets, MSAS, regional characteristics, MSREG, and level of education, EDC. The results of the estimation model in column (3) show there are 3 variables that are significant at the 0.05 level of errors, namely MSCOL, MSMON and MSREG. This means that individually, the imposition of collateral, a more rigorous monitoring, and regional aspects significantly affect the ability of the bank to avoid moral hazard. Regional aspect is negative means an area that is far from the centre of the province is more trust the ability of the bank to avoid moral hazard. The independent variables are jointly significantly affect MHMS, with probability values (LR statistic) of 0.019 or less than 0.05.

Conclusion for model estimation MSE is in some alternative models of adverse selection, there is one variable that is consistent, both individually and together, significantly affect the dependent variable. The variables are aspects of the information gathered. The variables significantly affect the perception of the ability of the participating banks KUR to avoid adverse selection. Asset characteristics and educational characteristics have a significant effect on the unrestricted model. In some alternative models for moral hazard, there are two variables that are consistent both individually and together, significantly affect the dependent variable. The variables are monitored tighter and the imposition of collateral. The regional characteristics influence significantly on unrestricted model.

5. **Conclusion**

Review of asymmetric information has been widely applied in various countries. The literature refers to several factors that influence the adverse selection and moral hazard. The phenomenon of asymmetric information in Indonesia is interesting to study, especially after the government launched a new loan program, KUR program. Credit program for SMEs with the interest rate is really low compared to the average interest rates. The research attempted to assess the perception of small businesses and the rural banks of the implementation of KUR through the perspective of asymmetric information.

The results showed that according to the opinion of rural banks and small businesses, adverse selection can be avoided by strengthening the information about prospective borrowers. Sufficient information that can typically occur through a relatively long relationship, so that the banks can better know the character of prospective borrowers as well. In addition to the adequacy of the information, the rural bank respondents stated that the technical aspects in the form of technical personnel and adequate facilities are also able to

avoid adverse selection. Knowledge and practical experience of rural banks to make them believe that the technical aspects to be one of the determining factors in order to avoid adverse selection. Differences in the level of assets of small businesses can influence their opinion regarding adverse selection. Small businesses with asset levels above the average more believe the bank is able to handle the adverse selection problem.

Regarding moral hazard, rural banks and small businesses argued that the imposition of the collateral to the debtor has an important role to avoid moral hazard. These opinions are understandable because even though the collateral is not a major factor, but the collateral serves as a binder of the debtor's obligation to the bank. Loans with a relatively small amount, collateral can be any asset that owned by the debtor, which value may be much smaller than the amount of the obligation. According to small businesses in addition to the collateral, tighter monitoring is also necessary to avoid moral hazard. Differences in regional character could affect small micro enterprises opinion about moral hazard. Those who are outside the provincial capital is more be sure that the bank will be able to avoid moral hazard.

Compared to the opinion of the rural bank, small businesses have a higher confidence that the executing bank of KUR can overcome the problem of asymmetric information. Respondents from the rural bank argued that the KUR program with low-interest rates have an adverse effect on their business development. According to the rural bank, they have an advantage in terms of proximity to small entrepreneurs, and better able to overcome the problem of asymmetric information. They believe that the KUR program will run better if rural banks involved in the program.

The policy implications are the need to broaden the of collaboration schemes of KUR with rural banks to better reach the capital needs of the small businesses. To obtain more comprehensive results, subsequent research can expand the area of research, not only in East Java, but in all provinces in Java, or the whole of Indonesia.

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Appendix

Table A Description of variables

Factors	Symbol	Description
Model 1		**Rural Bank Respondent**
Dependent Variable		
Probability not occur Adverse Selection	ASRB	1 if respondents feel that the participating banks were able to lend KUR to the right borrower, otherwise 0.
Independent Variable		
RB information	RBINFO	1 if respondents feel that the participating banks have information about the condition of the recipient KUR very well, otherwise 0.
RB technical aspects	RBTC	1 if respondents feel that the participating banks have the technical personnel and adequate facilities to reach potential borrowers, otherwise 0.
RB other institutions	RBINS	1 if respondents feel that the participating banks in need of assistance or recommendations of other institutions to find out the condition of debtor information, otherwise 0.
RB asset classification	RBAS	1 if RB respondents had assets above the average of the other respondents, otherwise 0.
RB regional classification	RBREG	1 if RB is in the area of Surabaya and Sidoarjo (East Java provincial economic center), otherwise 0.
RB classification	RBC	1 if the respondent is a category RB Sharia, otherwise 0.

Factors	Symbol	Description
Model 2		**Rural Bank Respondent**
Dependent Variable		
Probability not occur Moral Hazard	MHRB	1 if respondents feel that moral hazard does not occur, which is deliberately not paying KUR, otherwise 0.
Independent Variable		
RB collateral	RBCOL	1 if respondents feel that the participating banks asked for additional guarantees (collateral), to prevent moral hazard, otherwise 0.
RB monitoring	RBMON	1 if respondents felt that the participating banks to monitor credit conditions tighter, so there is no loss due to moral hazard, if not 0.
RB Information	RBINFO	1 if respondents feel that the participating banks have information around the condition of the recipient KUR very well, otherwise 0.
RB asset classification	RBAS	1 if the RB has assets above the average of the other respondents, otherwise 0.
RB regional classification	RBREG	1 if RB is in the area of Surabaya and Sidoarjo (East Java provincial economic center), otherwise 0.

Factors	Symbol	Description
Model 3		**MSE Respondent**
Dependent Variable		
Probability not occur Adverse Selection	ASMS	1 if respondents feel that the participating banks were able to lend KUR, to the right borrower, otherwise 0.
Independent Variable		
MS Information	MSINFO	1 if respondents feel that the participating banks have information about the condition of the recipient KUR very well, otherwise 0.
MS technical aspects	MSTC	1 if respondents feel that the participating banks have the technical personnel and adequate facilities to reach potential borrowers, otherwise 0.
MS other institutions	MSINS	1 if respondents feel that the participating banks in need of assistance or recommendations of other institutions to find out the condition of debtor information, otherwise 0.
MS asset classification	MSAS	1 if RB respondents had assets above the average of the other respondents, otherwise 0.
MS regional classification	MSREG	1 if MS is in the area of Surabaya and Sidoarjo (East Java provincial economic center), otherwise 0.
MS education classification	EDC	1 if the respondent has a level above junior secondary education, otherwise 0.

Model 4		MSE Respondent
Dependent Variable		
Probability not occur Moral Hazard	MHMS	1 if respondents feel that moral hazard does not occur, which is deliberately not paying KUR, otherwise 0.
Independent Variable		
MS collateral	MSCOL	1 if respondents feel that the participating banks asked for additional guarantees (collateral), to prevent moral hazard, otherwise 0.
MS monitoring	MSMON	1 if respondents feel that the participating banks to monitor credit conditions tighter, so there is no loss due to moral hazard, if not 0.
MS Information	MSINFO	1 if respondents feel that the participating banks have information about the condition of the recipient KUR very well, otherwise 0.
MS asset classification	MSAS	1 if the MS has assets above the average of the other respondents, otherwise 0.
MS regional classification	MSREG	1 if MS is in the area of Surabaya and Sidoarjo (East Java provincial economic center), otherwise 0.
MS education classification	EDC	1 if the respondent has a level above junior secondary education, otherwise 0.