

ANALYSIS OF FACTORS THAT AFFECT THE LEVEL OF COLLECTIBILITY OF MICRO CREDIT CASE STUDY PT BANK RAKYAT INDONESIA (Persero) Tbk, JAKARTA TIMIS TEBET UNIT TABET JAKARTA

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Abstract - This study aims to determine the factors that influence the level of micro credit collectability.

This study uses a quantitative approach. The sampling method used is the purposive sampling method. The samples in this study were 840 new microcredit debtors from 2015 to 2018, consisting of 103 debtors with special attention, substandard, non-performing loans or blacklisted status, and 737 debtors with current status. Data analysis method used in this study is logistic regression analysis.

Factors thought to influence the level of microcredit collectability are document completeness, number of dependents, collateral ratio, age of debtor, length of business, amount of financing, total income, and ratio of loan to income.

Based on the results of hypothesis testing with a significance level of 5%, it was concluded that partially the completeness of documents, the amount of financing, the amount of income, and the ratio of financing to income significantly affected the level of collectability of microcredit

Keywords: Micro Credit, UMKM, and Credit Quality Collectability

Abstrak– Penelitian ini bertujuan untuk mengetahui faktor-faktor yang mempengaruhi tingkat kolektabilitas kredit mikro.

Penelitian ini menggunakan pendekatan kuantitatif. Metode sampling yang digunakan adalah metode *purposive sampling*. Sampel dalam penelitian ini sebanyak 840 debitur kredit mikro baru tahun 2015 sampai dengan 2018, yang terdiri dari 103 debitur dengan status dalam perhatian khusus, kurang lancar, non performing loan atau daftar hitam, dan 737 debitur dengan status lancar. Metode analisis data yang digunakan dalam penelitian ini adalah analisis regresi logistik.

Faktor-faktor yang diduga mempengaruhi tingkat kolektabilitas kredit mikro adalah kelengkapan dokumen, jumlah tanggungan, rasio jaminan, usia debitur, lama usaha, jumlah pembiayaan, jumlah penghasilan, dan rasio pinjaman terhadap penghasilan.

Berdasarkan hasil pengujian hipotesis dengan tingkat signifikansi 5%, disimpulkan bahwa secara parsial kelengkapan dokumen, jumlah pembiayaan, jumlah penghasilan, dan rasio pembiayaan terhadap penghasilan mempengaruhi secara signifikan tingkat kolektabilitas kredit mikro.

Kata kunci : Kredit Mikro, UMKM, dan Kualitas Kolektabilitas Kredit

I. PRELIMINARY

Banks as financial institutions that have an intermediary function, are obliged to manage funds from parties that are in excess in the form of deposits, and channel these funds to parties that lack funds in the form of loans. In providing loans, banks are faced with several risks, both credit risk and non-credit risk. Therefore, banks need to take initial prevention and mitigation of the risks that will arise in lending or crediting (source: SE of the President of the Republic of Indonesia, Law Number 10 of 1998 concerning Amendments to Law Number 7 of 1992 concerning Banking).

Table 1.1 below provides an overview of the types and types of non-performing loans in the commercial Micro segment faced by PT. Bank Rakyat Indonesia (Persero) Tbk, East Tebet Unit, Jakarta Otista Branch.

Table 1.1
Commercial Micro Balance & Collectability Development East Tebet Unit, Jakarta Otista Branch Office
2015-2018 period

Loan (Balance)	2015	2016	2017	2018
- Balance (IDR Millions)	37,700	42,960	50,520	54,836
- Kupedes	6,155	7,415	11,756	13,052
- Micro Curry	783	4,637	5,601	5,497
- Briguna Mikro	29,246	30,596	32,772	36,122
- Kupedes Rakyat	1,292	293,311	389,675	163,948
- Special Mention (DPK%)	4.34	3.28	1.93	2.25
- NPL (%)	1.29	0.37	0.53	0.40

From Table 1.1 above, it can be seen that the percentage of loans with special attention status (DPK) in 2015 was 4.34%, however there was a decrease in 2016 to 3.28%, there was a decline again in 2017 to be as big as 1.93%, and in 2018 the increase in DPK repeated to 2.25%. From the non-performing loan (NPL) side, there was a decrease from 1.29% in 2015 to 0.37% in 2016, and in 2017 it rose again to 0.53%, and then in 2018 it fell to 0.40%. To solve the problem of NPL or non-performing loans, it is necessary to know what factors have caused the decline in credit quality (Source: Bank Bri Unit Tebet Timur Jakarta).

Based on the background description above, the authors are interested in conducting research on one of the work units of PT Bank Rakyat Indonesia (Persero) Tbk, namely the Tebet Timur Unit, Jakarta Otista Branch Office in Jakarta with the title "Factors Affecting the Collectability Level of Micro Credit Debtors. : A Case Study at PT Bank Rakyat Indonesia (Persero) Tbk, East Tebet Unit, Jakarta Otista Branch Office".

1.1. Formulation of the problem

Based on the background above, the formulation of the research problem is:

1. Does the old factor of business affect the collectability quality of micro credit at PT. Bank Rakyat Indonesia (Persero) Tbk, East Tebet Unit, Jakarta Otista Branch Office?
2. Does the factor of the number of dependents affect the quality of micro credit collectability at PT. Bank Rakyat Indonesia (Persero) Tbk, East Tebet Unit, Jakarta Otista Branch Office?
3. Does the age factor of the debtor affect the quality of micro credit collectability at PT. Bank Rakyat Indonesia (Persero) Tbk, East Tebet Unit, Jakarta Otista Branch Office?
4. Does the factor of income affect the quality of micro credit collectability at PT. Bank Rakyat Indonesia (Persero) Tbk, East Tebet Unit, Jakarta Otista Branch Office?
5. Does the document completeness factor affect the quality of micro credit collectability at PT. Bank Rakyat Indonesia (Persero) Tbk, East Tebet Unit, Jakarta Otista Branch Office?

6. Does the guarantee factor affect the quality of micro credit collectability at PT. Bank Rakyat Indonesia (Persero) Tbk, East Tebet Unit, Jakarta Otista Branch Office?
7. Does the amount of financing factor affect the quality of micro credit collectability at PT. Bank Rakyat Indonesia (Persero) Tbk, East Tebet Unit, Jakarta Otista Branch Office?
8. Does the total financing factor to total income affect the collectability quality of micro credit at PT. Bank Rakyat Indonesia (Persero) Tbk, East Tebet Unit, Jakarta Otista Branch Office?

1.2. Research purposes

1. Knowing the effect of the old factor of business on the quality of micro credit collectability.
2. Knowing the effect of the number of dependents on the collectability of microcredit.
3. Knowing the influence of the debtor's age factor on the quality of micro credit collectability.
4. Knowing the effect of income factors on the quality of micro credit collectability.
5. Knowing the effect of the document completeness factor on the collectability quality of micro credit.
6. Knowing the effect of the guarantee factor on the quality of micro credit collectability.
7. Knowing the effect of the amount of financing on the collectability of microcredit.
8. Knowing the effect of the amount of financing on the amount of income on the collectability quality of micro credit.

II. LITERATURE REVIEW

2.1. Definition of Bank

According to Law No. 10 of 1998 dated 10 November 1998 concerning banking, a bank is a business entity that collects funds from the public in the form of deposits and distributes them to the public in the form of credit and or other forms in order to improve the standard of living of the people at large.

Speaking of banks, everyone will associate it with money, and there is always an assumption that anything related to banks has to do with money. This is not wrong, because banks are financial institutions or companies engaged in finance

2.2. Definition and Types of Credit

According to Rivai (2013: 198) "Credit is the delivery of goods, services or money from one party (creditor or lender) on the basis of trust to another party (debtor or debtor) with a promise to pay from the credit recipient to the credit provider on the date that has been agreed by both parties "

2.3. Micro Credit

The history of microcredit was started by a professor named Muhammad Yunus in the early 70s. The man who was born on June 28, 1940 is a professor at a university in Bangladesh, quoted in his book entitled "MICROFINANCE Developing Paths to Self-Sufficiency", which started in an outside bank and provided small loans to people in his country who were generally women. who do not have a definite income and cannot apply

for loans with conventional credit from banks or other financial institutions because of their economic limitations (Hasibuan, 2013). This credit was also originally formed with the aim of forming solidarity among humans in need,

2.4. Bad credit

Basically, the credit issued by the bank aims to assist customers in financing the business it runs, but it does not rule out the possibility of problems or bad credit, whether it is an intentional or unintentional problem.

2.5. Credit Analysis

Credit analysis is a research conducted by a bank on the feasibility of a company, the feasibility of a customer's business, credit needs, the ability to generate profits, sources of credit repayment and collateral available to cover credit applications (Rivai, 2013: 217)

2.6. Factors Affecting Credit Collectability Quality

Based on previous studies, the factors that affect the collectability quality of microcruds are:

a. Length of Business

The length of business factor means that the debtor's business that has been running for a long time has become a reference for the debtor in the maturity of managing the business. So, the longer the debtor's business age, the more influential it is on the payment, so it is considered capable of paying the debt when it is collected by the creditor.

This view is evidenced by the results of research conducted by Diah and Ayu (2016), Cahyani and Diantini (2016), Atika, et al (2012), Hapsari (2012), Yunita (2010), and Mohamed Sameh et al (2016) with The results of his research indicate that the length of time of business has a significant negative effect on the decline in collectability quality.

However, the results of this study contradict research conducted by Ida and Hariyati (2013), Verani et al (2017), Deny (2014), Rezki (2017), Juwita (2009), Jiming and Wei Wei (2011), Nakhar et al (2017), which show that length of business has no effect on decreasing collectability quality. Based on the theory and previous research that has been described, the hypotheses that can be formulated are as follows:

H1: The length of business has a significant effect on quality credit collectability.

b. The number of dependents

The factor of the number of dependents can be interpreted as the number of people whose living expenses are borne by the debtor, and those who are borne by the debtor are usually children and wife. There are two views, namely (i) a positive view that if the financing is large enough, it reflects a bigger debtor's burden, and (ii) a negative view so that the debtor is more careful so that there is no default.

This theory is proven by the results of research conducted by Alifiah, et al (2012), Jiming and Wei Wei (2011), Cahyani and Diantini (2016), SupRYin and Mansur (2016), Mohamed Sameh et al (2016), Yudi (2015)) shows that the number of dependents has a negative and insignificant effect on collectability. This means that the greater the number of dependents of the debtor, the loan that the debiur gets has no effect in the occurrence of default. Based on the theory and previous research that has been described, the hypotheses that can be formulated are as follows:

H2: The number of dependents factor has a significant effect on credit collectability.

c. Debtor's Age

The age factor means that the age of the debtor is seen as reflecting maturity in managing and making business decisions. The higher the age of the debtor, the more mature the management of the business is so that it is seen as reducing the risk of decreasing the quality of micro credit collectability.

This view is evidenced by the results of research conducted by the results of research conducted by Alifiah et al (2012), Atika et al (2012), Mohamed Sameh et al (2016), Yudi (2015) and Yunita (2010). Debtor's age has a negative and insignificant effect on collectability.

However, the results of this study contradict the results of research conducted by Ida and Hariyati (2013), Verani et al, (2017), Deny (2014), Juwita (2009), Jiming and Wei Wei (2011), Cahyani and Diantini (2016), Nakhar et al (2017) stated that the age factor has no effect on the prediction of debtor collectability. Then Suprehin and Mansur (2016) and Hapsari (2012) show that the debtor's age factor has a significant negative effect on the prediction of collectability. Meanwhile, Rezki (2017) shows that the debtor's age factor has a significant positive effect on the prediction of collectability. Based on the theory and previous research that has been described, the hypotheses that can be formulated are as follows:

H3: The debtor's age factor has a significant effect on quality collectability credit.

d. Operating Income

The business income factor can be seen as reflecting the ability to pay loans provided by the bank, the greater the income obtained from the business, the smaller the debtor will experience default, and conversely the smaller the income the debtor gets, the greater the debtor will experience default. Therefore, debtors must manage their businesses well so that debtors' income is stable to prevent the risk of decreasing micro credit quality from getting smaller.

This view is evidenced by the results of research conducted by Ida and Hariyati (2013), Nakhar et al (2017), Madhushani (2018), Yudi (2015), Hapsari (2012) which show that income factors have a negative effect on predictions of collectability.

However, the results of this study contradict the results of research conducted by Verani et al, (2017), Deny (2014), Rezki (2017), Juwita (2009), Cahyani and Diantini (2016), SupRYin and Mansur (2016), Yunita (2010) which shows that business income has a positive effect on the prediction of default. Then Alifiah, et al (2012), Atika, et al (2012) which show that the income factor has no effect on predictions of collectability. Based on the theory and previous research that has been described, the hypotheses that can be formulated are as follows:

H4: The income factor has a significant effect on quality credit collectability.

e. The completeness of document

The document completeness factor means that the documents are tidier / more complete, meaning that the debtor is more tidy in managing his personal and business administration. The tidiness or orderliness of document storage shows good business organization, thus reflecting that it is seen as reducing the risk of decreasing the quality of micro credit collectability.

This view is evidenced by the results of research conducted by the results of research conducted by Yunita (2010) which showed that document completeness had a negative effect on the prediction of collectability.

However, the results of this study contradict the results of research conducted by Deny (2014), Rezki (2009) and Atika, et al (2012), that document completeness has no effect on collectability. Based on the theory and previous research that has been described, the hypotheses that can be formulated are as follows:

H5: Completeness factor document has a significant effect on the quality of credit collectability.

f. Guarantee factor

The guarantee factor can be outlined to have 2 beliefs about the amount of collateral, including: (i) to be careful, because the debtor is afraid of losing the guarantee in the event of a default. Guarantees are generally predicted at prices below market prices, and (ii) take high business risks, based on the concept of high risk high return if successful, get high profits. If it fails, there is a guarantee that can be used to pay off the debt.

So it is expected that there is a negative relationship between the size of the guarantee and a decrease in the quality of collectability. Based on the theory and previous research that has been described, the hypotheses that can be formulated are as follows:

H6: The guarantee factor has a significant effect on quality collectability credit.

g. Total Financing Factor

As can be outlined the factors of the amount of financing can reflect the higher the amount of financing provided by the bank, the higher the risk of decreasing credit collectability quality. Therefore, the amount of financing must be absolutely certain that the distribution is in accordance with the ability of the prospective debtor, and properly shown to the debtor.

previously that the amount of financing is what measures the debtor's ability to pay long-term debt at maturity, the higher the loan amount given, the easier the default will be. Therefore, our capacity to take loans is measured by our capacity to pay each month that is required by the bank according to the specified due date. Based on the theory and previous research that has been described, the hypotheses that can be formulated are as follows:

H7: The amount of financing factor has a significant effect on the quality of collectability credit.

h. Total Financing to Total Income Ratio Factor

The ratio factor of the amount of financing to total income can be outlined as having 2 beliefs, including: (i) to be careful, because the debtor is afraid of losing collateral because it will have a negative impact if there is a decrease in the quality of collectability, and (ii) feel safe if the amount of financing is large will get a large profit, which will result in high risk, if successful, you can get high profits and have a positive impact which will prevent a decrease in the quality of collectability.

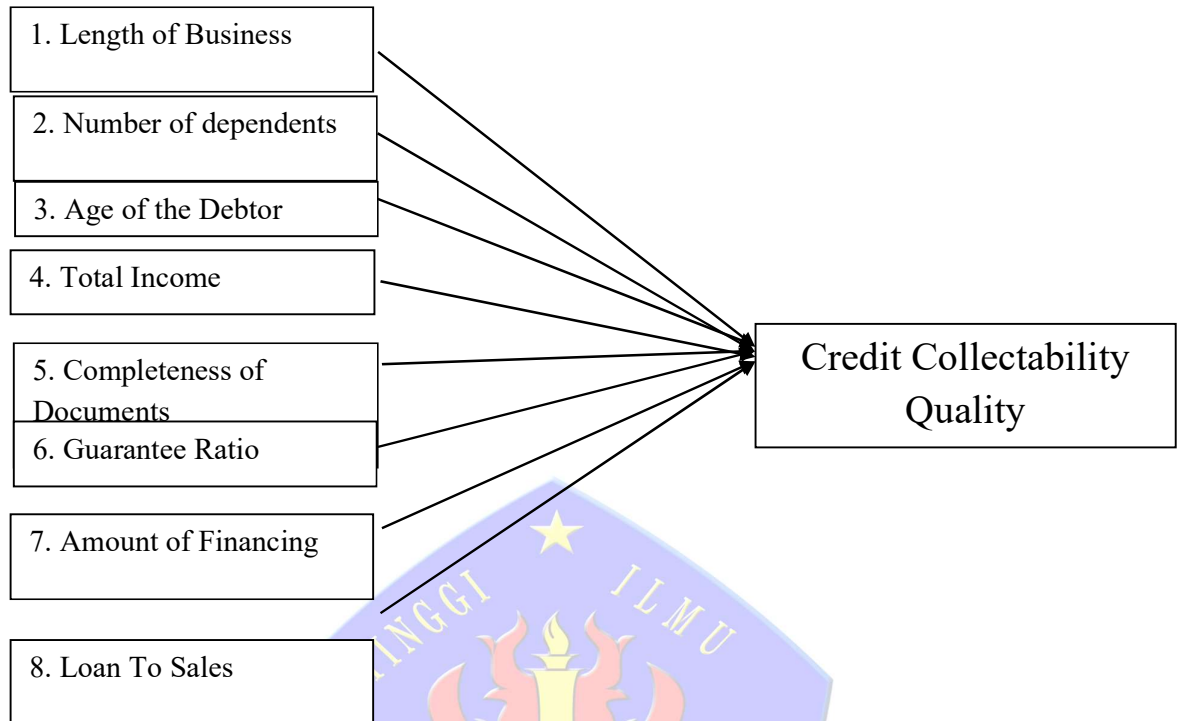
So it is expected that there is a negative relationship between the ratio of total financing to total income with a decrease in collectability quality. Based on the theory and previous research that has been described, the hypotheses that can be formulated are as follows:

H8: The ratio factor of the amount of financing to total income has an effect significant to the quality of credit collectability.

2.7. Framework of Mind

The variables in this study are grouped into two, namely the independent variable or independent variable and the dependent variable or dependent variable. The independent variables in this study consist of (i) length of business, (ii) number of dependents, (iii) age of the debtor, (iv) total income, (v) completeness of documents, (vi) guarantee ratio, (vii)

amount of financing, and (viii) loan to sales. The dependent variable in this study is the quality of credit collectability as measured by collectability quality dummy variables.



Framework

III. RESEARCH METHOD

3.1. Research Strategy

The data analysis method used in this research is descriptive analysis with a quantitative approach. This study aims to determine the factors that significantly affect the quality of micro credit collectability at the Tebet Timur unit, the Jakarta Otista branch office. To achieve this goal, this study uses a dummy variable quality of micro credit collectability as a proxy for the decline in credit quality. A micro credit is declared not to experience a decline in collectability quality and will get a value of 0 if its status is current (collectability 1). On the other hand, a micro credit is declared to have decreased collectability quality and will receive a value of 1 if its status is under special mention (collectability 2).

3.2. Population and Sample Research

Population is a combination of all elements in the form of events, things or people who have similar characteristics which become the center of attention of a researcher because it is seen as a research universe (Lubis, 2018: 19). According to Sugiyono (2018: 80), population is a generalization area consisting of objects or subjects that have certain qualities and characteristics that are determined by researchers to study and then draw conclusions. The population of this study were all micro credit customers at PT. Bank Rakyat Indonesia (Persero) Tbk, East Tebet Unit, Jakarta Otista Branch.

The sample in this study were new loan customers or who had never previously received a loan from PT. Bank Rakyat Indonesia (Persero) Tbk, Tebet Timur Unit, Jakarta Otista Branch for the period 2015 to 2018. Respondents were taken using purposive

sampling technique, which is a sampling technique based on criteria with specific objectives.

Purposive The sampling itself is assumed to be new micro customers who get micro credit approval and withdrawal in each of the observation years. The years are 2015 to 2018, consisting of 737 new debtors who get a score of 0 if their status is current (collectability 1), and 103 new debtors who get a value of 1 if their status is under special attention (collectability 2), less current (collectability 3) non performing loan (collectability 4), or black list (collectability 5).

3.3. Operationalization of Variables

3.3.1. Identification of research variables

The variables in this study are grouped into two, namely the independent variable (free) and the dependent variable (bound). There are 8 independent variables in this study, namely length of business, number of dependents, age of debtors, total income, completeness of documents, completeness of guarantees, amount of financing, and the ratio of loan to sales to the dependent variable, namely collectability quality.

3.3.2. Conceptual description of variables

In this section, we will explain the research variables. There are dependent variables / dependent (dependent variable) and independent variable (independent variable). In this study, the dependent variable is represented by collectability quality, while for the independent variable it is represented by: (i) length of business, (ii) number of dependents, (iii) age of the debtor, (iv) total income, (v) completeness of documents, (vi) guarantee ratio, (vii) total financing, and (viii) loan to sales ratio. However, in this study, the annual report data were taken from the work unit growth report for the 2015-2018 period

1. The dependent variable in the study is collectability quality. According to Ariefiandi and Sasongko (2016), collectability quality can be defined as the classification of the status of installment or loan payments and interest. With credit collectability, banks can find out the quality of debtors.

Pada This study uses a dummy variable of micro credit collectability quality as a proxy for the decline in credit quality. A micro credit is declared not to experience a decline in collectability quality and will get a value of 0 if its status is current (collectability 1). A micro credit is declared to have decreased collectability quality and get a value of 1 if its status is under special attention (collectability 2), substandard (collectability 3) non performance loan (collectability 4), or black list (collectability 5).

2. Vaindependent variables used in this study are: (i) length of business, (ii) number of dependents, (iii) age of the debtor, (iv) total income, (v) completeness of documents, (vi) guarantee ratio, (vii) amount of financing , and (viii) amount financed against total income. These variables will be explained as follows:

a. Length of Business

The long business factor means that the debtor's business that has been running for a long time has become a reference for the debtor. Dthe maturity nature of managing the business the Cahyani and Diantini (2016).The length of the business is calculated with the maximum standing of the debtor's business is 1 year, and the maximum business length of standing is 11 years. This annual data is taken from the BRI Work Unit Growth Report for the 2015-2018 period. This prevents defaults, which have an impact on the deterioration of micro credit quality.

b. The number of dependents

The amount of coverage factor means that the debtor is able to prepare finances at any time dependents in a living economythe amount that will increase

should not be an obstacle for debtors to default on when the nominal loan is larger Jiming and Wei Wei (2011). In this study, the number of dependents of the debtor is at least 2 people and a maximum of 5 people, this annual data is taken from the BRI Work Unit Growth Report for the 2015-2018 period. Reason This is to minimize the occurrence of defaults which affect the decline in the quality of micro credit collectability.

c. Debtor's Age

The age factor can be interpreted as the age of the debtor as a reference, the older the debtor's age should be a debtor's maturity in paying obligations every month to the bank which has been agreed by both parties between the debtor and creditor Alifiah et al (2012). In this study, the minimum age for debtors to get a loan is 25 years, while the maximum age for debtors is 65 years. This annual data is taken from the BRI Work Unit Growth Report for the 2015-2018 period.

d. Total Income

Business income factor can be interpreted The income received by the debtor every day, which is totaled every month, becomes the benchmark for how much the debtor's income is received to be able to pay debtor obligations every month as determined by BRI. Bhowever, the debtor's income in the bank provides a loan to finance his business the debtor can already be described, a business will run smoothly and earn good income depending on the debtor managing the business Ida and Hariyati (2013). In this study, the amount of income is proxied by logs from sales with the minimum monthly income of the debtor is IDR 20,000,000, and the maximum amount of the debtor's income per month is IDR 54,030,000. This annual data is taken from the BRI Work Unit Growth Report for the 2015-2018 period.

$$\text{Size of Total Income} = \text{Log (Sales)} \frac{\text{Jumlah Penghasilan}}{\text{Jumlah Pembiayaan}}$$

e. The completeness of document

The completeness factor can be interpreted before the debtor receives a loan from the bank, the bank is required to ask for complete documents as a condition for a credit application, for administration in micro credit. The main documents for debtors to submit to the BRI bank include, among others, Ktp, Family Card, Npwp, Marriage Book, Business Certificate, and guarantees. The benchmark for a minimum document completeness is 0 documents, and the maximum is 4 documents. This annual data is taken from the BRI Work Unit Growth Report for the 2015-2018 period.

f. Guarantee Ratio

Jaminan can be described that most people think what their assets are Upa securities become collateral for a loan whose nominal value is not proportional to the loan. In this study, the minimum value assurance ratio measure is 0.34, and the maximum is 8.1. Data taken from the BRI Work Unit Growth Report for the 2015-2018 Period.

$$\text{Guarantee Ratio} = \frac{\text{Jaminan}}{\text{Jumlah Pembiayaan}}$$

g. Total Financing

As previously explained, the amount of financing is what measures the debtor's ability to pay long-term debt at maturity, the higher the loan amount given, the easier the default will be. In this study, the amount of financing is proxied by the log of loan by measuring the minimum loan that is obtained is Rp. 60,000,000, and

the maximum loan that can be obtained is Rp. 250,000,000. Data taken from the BRI Work Unit Growth Report for the 2015-2018 Period.

Size of Total Financing = Log (Loan).

g. Total Financing against Total Income

As is well known, there are 2 points of view that reflect, the first point of view that loan to sales can have a positive effect on the decline in collectability quality, because the greater the loan to sales, the greater the financing burden on income. The alternative point of view is: the greater the loan to sales, the more careful the entrepreneurs are in managing their business, so that there is no decrease in the quality of credit collectability, so that the effect can be negative. By measuring the minimum loan to sales value obtained is 0.1850, measuring the maximum value obtained is 1.2500. Data taken from the BRI Work Unit Growth Report for the 2015-2018 Period.

$$LTS \text{ size} = \frac{\text{Jumlah Pembiayaan}}{\text{Jumlah Penghasilan}}$$

Table 1.2 Variable Operationalization

No.	Research variable	Measurement
1.	Length of Business	Since the establishment of the business, the application for credit has been abandoned
2.	The number of dependents	The number of people the debtor is responsible for
3.	Debtor's Age	Minimum 25 years Maximum 65 years
4.	Total Income	Log(Sales)
5.	The completeness of document	1. ID card 2. KK 3. NPWP 4. Marriage book 5. Business Certificate 6. Passport photo 7. Guarantee
6.	Guarantee Ratio	$RJ = \frac{\text{Nilai Jaminan}}{\text{Nilai Pembiayaan}}$
7.	Total Financing	Log(Loan)
8.	LTS	$\text{Loan To Sales} = \frac{\text{Pembiayaan}}{\text{Penghasilan}}$

$$\begin{aligned} \ln \frac{P_i(t)}{1 - P_i(t)} = & \beta_1 Doci, (t - 1) + \beta_2 Jmli, (t - 1) + \beta_3 Usiai, (t - 1) \\ & + \beta_4 Salesi, (t - 1) + \beta_5 Loani, (t - 1) \\ & + \beta_6 Thni, (t - 1) + \beta_7 Rji, (t - 1) \\ & + \beta_8 Ltsi, (t - 1) + e \end{aligned}$$

Information:

P/ (1-P) : Credit Collectability Quality (t)

I	: Debtor's condition 0 and 1
0	: Debtor's condition <i>non</i> Bauyar failed
1	: Debtor's condition <i>failed to pay</i>
b0	: Constants
Doc	:The completeness of document (t-1)
Qty	: Total Dependent (t-1)
Age	: Debtor's Age (t-1)
Sales	: Total Income (t-1)
Loan	: Total Financing (t-1)
Yrs	: Length of Business (t-1)
Rj	: Guarantee Ratio (t-1)
Lts	: Total Financing against Total Income (t-1)
b1	: Regression coefficientthe completeness of document
b2	: Regression coefficientthe number of dependents
b3	: Regression coefficientthe age of the debtor
b4	: Regression coefficienttotal income
b5	: Regression coefficientfinancing amount
b6	: Regression coefficientlength of effort
b7	: Regre coefficientthe guarantee ratio
b8	: Regression coefficientLts
e	: error

The test analysis with logistic regression pays attention to the following:

3.5 Logistic Regression Analysis

3.5.1 Logistic Regression Model Validity Test

Logistic regression analysis in this study was to see the probability of the influence of the independent variables on the decline in the quality of microcredit collectability. According to Ghozali (2009) in Yudiawati and Indriani (2016), logistic regression does not require assumptions of normality, heteroscedasticity, and autocorrelation, because the dependent variable contained in logistic regression is a dummy variable.

1. Hosmer And Lemeshow's Goodness Of Fit Test Feasibility Test

The accuracy of the sample regression function in estimating the actual value can be measured from the Goodness of Fit (Ghozali, 2017). Goodness of Fit (Hosmer-Lemeshow) is a test of accuracy that determines whether a research model is feasible or not with certain conditions. According to (Ghozali, 2017: 292-293), the hypothesis for assessing the fit model is:

H0: The hypothesized model is fit with the data

HA: The hypothesized model does not fit the data

Hosmer and Lemeshow's (HL) to test the null hypothesis that there is no difference between the model and the data so that the model can be said to be fit. If the value of Hosmer and Lemeshow Goodness-of-fit test statistics is equal to or less than 0.05, then the null hypothesis is rejected, which means that there is a significant difference between the model and its observation value so that the Goodness fit of the model is not good because the model cannot predict its observation value. If the

Hosmer and Lemeshow Goodness-of-fit Statistics value is greater than 0.05, then the null hypothesis cannot be rejected and it means that the model is able to predict its observation value or it can be said that the model is acceptable because it fits the observation data.

2. Prediction Accuracy Test

Percently correctly predicted is a test in logistic regression that is used to determine the percentage value of the predictive accuracy of a research model being tested. In this predictive accuracy test, there are correct and incorrect estimates. The high percentage of prediction accuracy will support the conclusion that there is no significant difference between the predicted data and the observation data. The greater the percentage of certain predictions, the better the model (Ghozali, 2017: 289).

3. McFaddenR-Square

Meanwhile, in logistic regression analysis, the McFadden R-Square value is available. Similar to R2 found in the OLS regression, a high McFadden R-Square value indicates the greater variability of the dependent variable which will be explained by the variability of the independent variable. So that the higher the McFadden R-Square, it indicates that the model is good and is said to be fit with the data being tested.

IV. RESULTS AND DISCUSSION

4.1. Description of Research Object

BRI has a firm focus on working on the MSME market. This is also the fuel to achieve the goal of becoming The Most Valuable Bank in Southeast Asia.

Bank Rakyat Indonesia (BRI) has a very significant role in grounding financial services for the banking sector in Indonesia. He is 124 years old, in line with his role that has reached a wide range, both in urban, rural and remote areas.

Quoting Warta Ekonomi, BRI, which focuses on the micro, small, and medium enterprises (MSMEs) segment, is still determined to take this market seriously. This focus is also one of the company's paths to achieve the most valueable banks in Southeast Asia by 2022. According to the President Director of BRI, Suprajarto, the MSME loan portfolio will be increased to 80% of BRI's total lending in 2022.

4.2. Descriptive statistics

Table 4.1

Descriptive statistics

	DOC	JMLT	LOAN	RJ	SALES	Yrs	AGE	LTS
Mean	1.2428	3.0071	21725	3.3724	31111	4.7547	36,844	0.7678
Median	1.0000	3,000	25000	3,000	31400	40000	35,500	0.7575
Maximum	40000	5.0000	25000	8.1000	54030	11,000	60,000	1.2500
Minimum	0.0000	2.0000	60000.	0.3400	20000	1.0000	25,000	0.1850
Std. Dev.	1.1576	0.8227	49924.	2,3003	10165	2.8809	8.0112	0.2898
Skewness	0.5739	0.4107	-1.3179	0.5566	0.8890	0.6355	0.9663	0.1183
Kurtosis	2.4951	2.4955	3.4963	2.3305	2.9198	2.3291	3.8428	1,9754
Jarque-Bera	55,042	32,526	251.79	59,062	110.89	72,293	155.59	38,701

Probability	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Observations	840	840	840	840	840	840	840	840

- a. In the table above, it can be seen that the average value of document completeness (DOC) is 1.2428, while the minimum value is 0.0000 and the maximum value is 4.0000. The standard deviation value is 1.1576. The standard deviation value is lower than the average value. This shows that the DOC variable is low during the observation period. In general, it can be said that the average type of document submitted by microcredit customers is only 1 type of document.
- b. The table above shows that the average value of the number of dependents (JMLT) is 3.0071, while the minimum value shows the number 2.0000 and the maximum value is 5.0000. The standard deviation value is 0.8227. The standard deviation value is lower than the average value. This shows that the low JMLT variable deviation during the observation period. This proves that the JMLT data in this study shows good data.
- c. The table above shows the average amount of financing (LOAN) of IDR 21,725,000, the minimum and maximum values of IDR 6,000,000 and IDR 25,000,000, respectively. Meanwhile, the standard deviation value is 4992423. The standard deviation value is lower than the average value. This shows that the LOAN variable is low during the observation period. This proves that the LOAN data in this study show good data.
- d. The table above shows the average value of the guarantee ratio (RJ) of 3.3724, the minimum and maximum values are 0.3400 and 8.1000, respectively. Meanwhile, the standard deviation value is 2.3003. The standard deviation value is lower than the average value. This shows that the low deviation of the RJ variable during the observation period. This proves that the RJ data in this study shows good data.
- e. The table above shows the average total income (SALES) value of IDR 31,111,167, the minimum and maximum values of IDR 20,000,000 and IDR 54,030,000, respectively. Meanwhile, the standard deviation value is IDR 10,165,238. The standard deviation value is lower than the average value. This shows that the SALES variable is low during the observation period. This proves that the SALES data in this study show good data.
- f. In the table above, it can be seen that the average length of business (THN) is 4.7547, the minimum and maximum values are 1.0000 and 11,000, respectively. While the standard deviation value is 2.8809. The standard deviation value is lower than the average value. This shows that the low THN variable deviation during the observation period. This proves that the THN data in this study shows good data.
- g. The table above shows the average age of debtors (AGE) of 36,844, the minimum and maximum values are 25,000 and 60,000, respectively. While the standard deviation value is 8.011209. The standard deviation value is lower than the average value. This shows that the low deviation of the AGE variable during the observation period. This proves that the AGE data in this study shows good data.
- h. In the table above, it can be seen that the average value of total financing to total income (LTS) is 0.7678, the minimum and maximum values are 0.1850 and 1,250, respectively. while the standard deviation value is 0.2898. The standard deviation value is lower than the mean value. This shows that the

LTS variable is low during the observation period. This proves that the LTS data in this study shows good data.

4.3. Hypothesis Testing Results

The test analysis using logistic regression pays attention to the following points.

4.3.1 Andrew and Hosmer-Lemeshow's Feasibility Test (Andrew and Hosmer Lemeshow Goodness of Fit Test)

**Table 4.2
Andrew and Hosmer and Lemeshow's Goodness of Fit Test Results**

	Quantile of Risk		Dep = 0		Dep = 1		Total	HL
	Low	High	Actual	Expect	Actual	Expect	Obs	Value
1	0.0059	0.0324	81	82,1261	3	1.87387	84	0.69221
2	0.0325	0.0630	81	79.9192	3	4,08082	84	0.30088
3	0.0632	0.0799	81	77.9811	3	6,01890	84	1.63106
4	0.0806	0.0960	77	76,6204	7	7,37960	84	0.02141
5	0.0964	0.1090	73	75.3418	11	8.65822	84	0.70617
6	0.1090	0.1230	75	74.3361	9	9.66389	84	0.05154
7	0.1232	0.1443	73	72,7928	11	11,2072	84	0.00442
8	0.1443	0.1741	67	70,8017	17	13,1983	84	1.29918
9	0.1745	0.2195	65	67.3970	19	16.6030	84	0.43130
10	0.2200	0.4570	64	59.6839	20	24.3161	84	1.07824
Total			737	737,000	103	103,000	840	6.21640
HL Statistics			6.2164		Prob. Chi-Sq (8)		0.6230	
Andrews Statistics			9.7636		Prob. Chi-Sq (10)		0.4615	

Testing the logistic regression model in this observation, uses a model feasibility test (Goodness of Fit) to ensure there are no weaknesses in the conclusions to be obtained. This test is said to be good if there is no difference between the observation results and the predicted data. This test uses the Chi square approach of the Andrew and Hosmer Lemeshow probability value. If the probability Chi square > 0.05 H0 is accepted, and if the probability Chi square < 0.05, H0 is rejected. If the results of H0 are rejected, the model is said to be not fit with the data, which indicates a significant difference between the model and the observed value, so that the model is declared unfit. Meanwhile, if H0 is accepted, it indicates that there is no significant difference between the model and its observation value so that the model is declared feasible in the study. In table 4.2, the assessment of the feasibility of the regression model is carried out by observing Hosmer and Lemeshow statistics and Andrews statistics. Both of these statistical numbers are in the acceptance area based on a significance level of 5%, resulting in the value of Hosmer and Lemeshow statistics with the chi-square statistical value used to show the significance of the number

of $6.2164 > 0.05$. And Andrews statistic with the probability of the chi-square statistical value used to show the significance of the number of 9.7636. Thus, it can be concluded that this value is greater than the significant level $\alpha = 5\%$. So that the null hypothesis (H_0) cannot be rejected, that is, this model can be accepted. This shows that the logistic regression model is said to be fit or feasible to be used in predicting the value of the observations. So that there is no real difference between the model and the observed value used. In this case the logistic regression model is stated to be able to analyze the effect of the probability of the value of the collectability decline value. Because it can be said that there is no indication of a serious mis-specification in this study.

4.3.2. Prediction Accuracy

Table 4.3
Expectation-Prediction Evaluation for Binary Specification

	Estimated Equation			Constant Probability		
	Dep = 0	Dep = 1	Total	Dep = 0	Dep = 1	Total
P (Dep = 1) <= C	737	103	840	737	103	840
P (Dep = 1) > C	0	0	0	0	0	0
Total	737	103	840	737	103	840
Correct	737	0	737	737	0	737
% Correct	100.00	0.00	87.74	100.00	0.00	87.74
% Incorrect	0.00	100.00	12.26	0.00	100.00	12.26
Total Gain *	0.00	0.00	0.00			
Percent Gain **	NA	0.00	0.00			

	Estimated Equation			Constant Probability		
	Dep = 0	Dep = 1	Total	Dep = 0	Dep = 1	Total
E (# of Dep = 0)	651.39	85.61	737.00	646.63	90.37	737.00
E (# of Dep = 1)	85.61	17.39	103.00	90.37	12.63	103.00
Total	737.00	103.00	840.00	737.00	103.00	840.00
Correct	651.39	17.39	668.78	646.63	12.63	659.26
% Correct	88.38	16.88	79.62	87.74	12.26	78.48
% Incorrect	11.62	83.12	20.38	12.26	87.74	21.52
Total Gain *	0.65	4.62	1.13			
Percent Gain **	5.27	5.27	5.27			

* Change in "% Correct" from default (constant probability) specification

** Percent of incorrect (default) prediction corrected by equation

This test is conducted to determine the success rate of predicting a model. So the table shows that in reality 737 data is categorized as zero, but when the logistic model is estimated there are 103 data categorized as one. Then in the second line shows that in fact 103 data is categorized as one and there are 0 categorized as zero. Thus it can be concluded with 0.5 as a limit (cut off) so that the results of the prediction accuracy are $(737 + 103/840) \times 100 = 87.74\%$. The high percentage of prediction accuracy will support that there is no significant difference between the predicted data and the observation data. Because the larger the percentage, the better the model. So it can be concluded that the logistic regression model tested is good.

4.3.3. McFadden R-Squared

Table 4.4

McFadden R-Squared Test Results

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	49,891	9,7660	5.1086	0.0000 ***
DOC	-0.2119	0.0989	-2.1423	0.0322 **
JMLT	-0.1680	0.1372	-1.2247	0.2207
LOG (LOAN)	3.6775	1,5803	2.3270	0.0200 **
RJ	-0.0093	0.0470	-0.1992	0.8421
LOG (SALES)	-6.3008	1.6842	-3.7410	0.0002 **
Yrs	0.0514	0.0369	1.3923	0.1638
AGE	-0.0102	0.0137	-0.7416	0.4583
LTS * LOG (SALES)	-0.3603	0.1303	-2.7639	0.0057 ***
McFadden R-squared	0.0701	Mean dependent var		0.1226
SD dependent var	0.3281	SE of regression		0.3212
Akaike info criterion	0.7134	Sum squared resid		85,749
Schwarz criterion	0.7641	Log likelihood		-290.65
Hannan-Quinn criter.	0.7329	Deviance		581.31
Restr. Deviance	625.14	Restr. log likelihood		-312.57
LR statistic	43,829	Avg. log likelihood		-0.3460
Prob (LR statistic)	0.0001			
Obs with Dep = 0	737	Total obs		840
Obs with Dep = 1	103			

In logistic regression testing using McFadden R-Square (R2), which is the same analog size as R2 in logistic regression. The McFadden R-Square test was used to measure how well the model explained the independent variable, namely the decrease in collectability quality. In table 4.3, the McFadden R-Square (R2) value is 0.070111, which means that the variability of the dependent variable is the collectability that can be explained by the variability of the end dependent variable, namely (i) document completeness (DOC), (ii) the number of dependents (JMLT), (iii) total financing (LOAN), (iv) guarantee (RJ), (v) total income (SALES), (vi) length of business (THN), (vii) age of the debtor (AGE), and (viii) loan to sales of 7,01%. While the remaining 92.99% is influenced by the variability of other variables that are not used in this study. The bigger McFadden R-Square (R2) value indicates that the goodness of fit model is better, so that this model is said to be fit or feasible with the data. The magnitude of the McFadden R-Square (R2) is indeed smaller than the adjusted R-Squared value because of the use of logistical data in this study.

4.3.4 Results of Testing the Affecting Factors Credit Collectability Quality

The purpose of this test is to determine the effect of each of the independent variables tested partially, namely completeness of documents (DOC), number of dependents (JMLT), total financing (LOAN), Loan To Sales (LTS), Guarantee Ratio (RJ), length of business (THN), age of debtor (AGE) & Turnover (SALES) on the dichotomous dependent variable, namely the probability of the decline in collectability quality. The significance levels used were 5% and 10%. Where the 1% significance level is a very good standard, because it means that the prediction error rate is only 1% and the prediction correctness level is 99%. Based on table 4.2, the hypothesis results are as follows:

- a. The results of testing the completeness of documents on the variable collectability quality degradation based on the document variable logistic regression get the coefficient of -0.2119 with a collectability level of $0.0322 < 0.05$. So that the document variable partially has a significant negative effect on collectability. So it can be concluded that the more the loan debtor completes the document, the lower the profitability of a decrease in collectability quality. Based on the results obtained, the first hypothesis is accepted, namely document variables have a negative effect on collectability.
- b. The results of testing the number of dependents on the variable collectability quality decline based on logistic regression of the variable number of dependents get a coefficient of -0.1680 with a probability level of $0.2207 > 0.05$. So that the variable number of dependents partially has a significant negative effect on collectability. So it can be concluded that the greater the number of dependents of the loan debtor, whatever loan is given to the debtor, it is not an obstacle to decrease the collectability quality. Based on the results obtained, the second hypothesis is rejected, namely the independent variable Total Dependent is positive on collectability.
- c. The results of the loan test based on the logistic regression of the variable loan obtained a coefficient of 3.6775 with a probability level of $0.02 < 0.05$. So that the variable loan partially has a significant positive effect on collectability. So it can be concluded that the higher the loan of a debtor, the debtor's collectability level has the possibility of decreasing the collectability quality. Based on the results obtained, the third hypothesis is rejected, which states that loan has a negative effect on collectability.
- d. The test results of the guarantee ratio to the collectability quality decline variable based on the logistic regression of the guarantee ratio variable get a coefficient of -0.0093 with a probability level of $0.8421 > 0.05$. So that the guarantee ratio variable partially has a negative and insignificant effect on collectability. So it can be concluded that the lower the guarantee ratio, the borrowers will experience a decrease in collectability quality. Based on the results obtained, the fourth hypothesis is rejected, which states that the guarantee ratio has a negative effect on collectability.
- e. The results of the sales test on the collectability quality decline variable based on the logistic regression of the sales variable obtained a coefficient of -6.3008 with a probability level of $0.0002 < 0.05$. So that the sales variable partially has a significant negative effect on collectability. So it can be concluded that the lower the sales has no effect on pinajamn so there is no decrease in collectability quality. Based on the results obtained, the fourth hypothesis is accepted which states that sales have a negative effect on collectability.
- f. The results of the year test on the variable collectability quality decline based on the logistic regression of the year variable obtained a coefficient of 0.0514 with a probability level of $0.1638 > 0.05$. So that the variable year partially has a positive and insignificant effect on collectability. So it can be concluded that the longer the year has no effect on the loan so it is easy to experience a

decline in collectability quality. Based on the results obtained, the fourth hypothesis is rejected, which states that the year has a positive effect on collectability.

- g. The results of age testing on the collectability quality decline variable based on the logistic regression of the age variable obtained a coefficient of -0.0102 with a probability level of $0.4583 > 0.05$. So that the age variable partially has no significant negative effect on collectability. So it can be concluded that the more immature age has an effect on debtor loans so that it is easy to experience a decrease in collectability quality. Based on the results obtained, the fourth hypothesis is accepted which states that age has a negative effect on collectability
- h. The results of the loan to sales test on the collectability quality decline variable based on the logistic regression of the loan to sales variable obtained a coefficient of -0.3603 with a probability level of $0.0057 < 0.05$. So that the variable loan to sales partially has a significant negative effect on collectability. So it can be concluded that there are 2 points of view, (i) the greater the loan to sales, the greater the financing burden on income, and (ii) the greater the loan to sales, the more careful entrepreneurs are in managing their business, so that quality does not decrease. credit collectability.

It can be concluded that based on the significance level of 5%, the variables that have a significant effect on the decrease in collectability quality are doc, number, loan, rj, sales, years, age, and lts. So that if the research uses a significance level of 5%, it will also get the same results. Based on the results of existing hypothesis testing, it shows that there are 7 variables studied that have a significant effect but there are also those that are not significant to the variable decrease in collectability quality in financial services companies, namely PT. Bank Rakyat Indonesia (Persero) Tbk, from 2015 to 2018.

4.4 Research Findings

In essence, this study uses variables that have been used in previous studies. Although this study uses a modification by using logistic regression as the financial independent variable. And there are two measures to describe the value of the decline in collectability quality, namely the decline in collectability quality and the non-decline in collectability quality. Where the results of the continuous variable show that 3 independent variables have no effect on the collectability quality value decrease the collectability quality and 4 variables indicate that all the independent variables tested have an influence on the collectability quality decrease value.

1. Effect of Documents on Collectability

And the analysis that has been tested shows that document variables have a negative effect on collectability. Thus, it can be interpreted that if we want to see how capable the debtor is to be able to pay the loan obligations by the debtor completing the documents as a loan administration requirement. So to reduce the possibility of a decline in collectability quality in the future, the debtor must increase his discipline to complete the declaration as a ratio or additional points to show his ability or ability to pay installments. Then the company will not get an NPL figure that exceeds the limit set by BI.

2. The Effect of Total Dependent on Collectability

The test results show that the amount of coverage has a negative effect on collectability. Then these results illustrate if it is concluded that the increasing number of dependents of the borrower on the loan, then whatever loan is given to the debtor, it is not an obstacle to decrease the collectability quality because the amount of coverage becomes a reference where if one day the debtor will add to his loan, the debtor already has a yardstick. to be able to pay according to its obligations must be fulfilled by the agreement

of both parties. So to go to the value of a decrease in the quality of the collectability of the debtor does not have any reason.

3. The Effect of Loans on Collectability

The test results show that the loan has a positive effect on collectability. Then these results illustrate that the higher the loan of a debtor, the greater the possibility of a decline in the quality of collectability, because of the capacity of the debtor or the ability of a debtor to finance his business, but the debtor insists on being able to obtain the loan, but for whatever reason, but with any conditions and reasons, the business being financed must be in accordance with the debtor's analysis or ability. So use business financing according to our ability to pay and the needs to finance the business, so that there is no default.

4. The Effect of the Guarantee Ratio on the Collectability

The test results show that the guarantee ratio has a negative effect on collectability. Then these results can be concluded that the lower the Guarantee Ratio, the borrowing and debtors will experience a decrease in collectability quality, why is that because most debtors provide guarantees to the bank that are not in accordance with the nominal business financing, because the guarantee ratio is not the main requirement in terms of business capital lending, that but as a complement. For example: what are the investments that are obtained during the course of the business, the bank asks the debtor for a guarantee so that it is the debtor's responsibility not to default.

5. The Effect of Sales on Collectability

The test results show that sales have a negative effect on collectability. So it can be concluded that the lower the sales has no effect on pinajamn so that the collectability quality does not decrease. Because as a result the debtor's payment of obligations is paid every month every date agreed by both parties, the income received is of course greater than the nominal paid by the obligation to the bank, if the income is less than the installment payment, the bank will of course not be given a loan, because the analysis results affect the nominal given by the bank to the debtor. So, adjust the value of the loan given to the bank to be able to finance the business, so that the debtor's collectability does not decrease.

6. The Influence of Years on Collectability

The test results show that the year has a positive effect on collectability. So it can be concluded that the longer the year it does not affect the loan so it is easy to experience a decline in collectability quality. Due to the fact that the length of time a business has become an important spearhead of the maturity of a financed business to be able to have preparations for them to prepare a payment obligation, the more mature or longer the business the debtor will mature to carry out its obligations. Why does the bank have a minimum business requirement of 1 year, because the maturity of the business is seen after the next 1 year, to avoid defaults.

7. Effect of Age on Collectability

From the test results, it shows that the results of age testing on the collectability quality decline variable based on the logistic regression of the age variable get a coefficient of -0.0102 with a probability level of $0.4583 > 0.05$. So that the age variable partially has a negative and insignificant effect on collectability. So it can be concluded that the more immature age has an effect on debtor loans so that it is easy to experience a decrease in collectability quality. Based on the results obtained, the fourth hypothesis is accepted which states that age has a negative effect on collectability.

8. Effect of Loan To Sales on collectability

The test results show the results of the loan to sales test on the decrease in collectability quality variables. Based on logistic regression, the variable loan to sales has a coefficient of -0.3603 with a probability level of $0.0057 < 0.05$. So that the variable loan to sales has a significant negative effect on collectability. So it can be concluded that they have 2 points of view, (i) to be careful in managing their business, and (ii) the bigger the loan to sales, the bigger the financing burden.

4.5. Logistic Analysis Results

Table 4.4 shows the estimation results using the logistic regression method, where the dependent variable is a dummy variable from the criteria for calculating the value of collectability loss value. The results of this estimation are carried out to see the effect of various independent variables which are proxies for factors that are considered to affect the value of the decline in the collectability of a company. The dependent variable which is the dummy variable for the decline in collectability quality = 1 and for NON- Decreasing collectability quality = 0 with the criteria for the Logistic Regression value being included in the collectability quality decline category. The independent variables are: DOC, JMLT, LOAN, RJ, SALES, THN, AGE, and LTS so that they use the Logistics method.

This use is to see the effect of the independent variable on the tool to predict the decline in credit collectability quality. Where the logistic regression includes testing the Hausman test, and the empirical model which will include testing the classic assumptions, which consists of multicollinearity testing, heteroscedasticity testing and autocorrelation testing, and adjusted R2 testing.

This study uses annual data for the 2015-2018 period with a total research sample of 840 debtors. Therefore, based on the existing sample data, then for Panel Data regression using the logistic method. Meanwhile, for logistical purposes, it uses a dummy variable with collectability quality = 1, which means that the number of observations is 103 debtors for the last 5 years and the number of observations for non-quality collectability = 0 is 737 debtors for the last 5 years. The following will report and discuss the results of multivariate analysis based on each estimation method.

Ber based on the regression equation above can be interpreted as follows:

1. The regression coefficient on the document completeness variable which is proxied by the quality of credit collectability is negative. This means that if the debtor has a high value, the probability or possibility of the debtor experiencing default will be small. So, the debtor must pay attention to the completeness of documents in his management for the continuity of credit payments so that there is no indication of default in the future, because of the completeness of the documents.
it is important for the bank to measure the extent to which the debtor can pay his long-term debt when due.
2. The regression coefficient on the variable number of dependents which is proxied by the quality of credit collectability is negative. This means, if the debtor who is given financing by the bank has a high activity value, the probability or possibility of the debtor experiencing default will be small. So, the debiutr must pay attention to the number of dependents that exist for survival so that there is no indication of default in the future, because the number of dependents is important for the bank to measure the extent to which the debtor can measure household finances so as not to make an excuse for the occurrence. failed to pay
3. The regression coefficient on the loan variable which is proxied by the quality of credit collectability is a positive sign. That is, if the debtor has high debt, the probability or possibility of experiencing default will be high.
4. The regression coefficient on the guarantee ratio variable which is proxied by the quality of credit collectability is negative. This means that if the debtor has a high

probability value, the probability or possibility that the debtor will fail will be interpreted by 2 points of view, namely, (i) a small value, and (ii) a high value. So, the bank must pay attention to the probability ratio, because probability is an important ratio for the bank to measure the extent to which the debtor can maintain his obligation to pay installments every month, and prevent the debtor from default.

5. The regression coefficient on the sales variable which is proxied by the quality of credit collectability is negative. This means that if the debtor has a low probability value, the probability or possibility that the debtor will experience default will be small.
6. The regression coefficient on the length of business (yrs) variable which is proxied by the quality of credit collectability is positive. This means that if the debtor has a high probability value, the probability or possibility of the debtor experiencing default will be high. Because, the length of this business is important for the debtor. With the length of business measured by the bank, the bank can measure the default rate that the debtor will experience.
7. The regression coefficient on the debtor age variable which is proxied by the quality of credit collectability is negative. This means that if the debtor has a high probability value, the probability or possibility of the debtor experiencing default will be high. Because, the debtor's age is important for the debtor. With the maturity of the debtor, it is easy for the bank to measure the ability to manage the business and pay the installment obligations, to prevent defaults.
8. The regression coefficient on the loan to sales debtor variable which is proxied by the quality of microcredit collectability is negative. This means that if the debtor has a low probability value, there are 2 points of view of the debtor, namely: (i) it has a negative effect because it is careful in managing its business, and (ii) has a positive effect because, the greater the loan to sales, the higher the loan to sales. the loan burden is getting bigger. Denagn loan to sales bank can easily measure the ability of the debtor in later paying loan repayment obligations, to prevent defaults.

V. CONCLUSIONS AND SUGGESTIONS

5.1. Conclusion

A bank has an NPL target set by BI, a healthy work unit always maintains the NPL figure so as not to increase, if a work unit or bank NPL exceeds the target set by BI, therefore, the work unit or banking industry cannot distribute loans or cannot provide financing to debtors. For this reason, the researcher wants to know what financial ratios can predict the possibility of a decline in the quality of credit collectability. In addition to financial ratios, this study also uses independent variables to increase the likelihood of a decline in the quality of credit collectability in terms of corporate governance.

So based on the research results that have been tested, conclusions can be drawn:

1. Completeness of documents has a negative effect on the quality of credit collectability at BRI companies in 2015-2018.
2. The number of dependents has a negative effect on the quality of credit collectability at BRI companies in 2015-2018.
3. Laon has a positive effect on the quality of credit collectability at BR companies in 2015-2018.
4. Collateral has a negative effect on the quality of credit collectability at BRI companies in 2015-2018.
5. Sales have a negative effect on the quality of credit collectability at BRI companies in 2015-2018.
6. Years have a positive effect on the quality of credit collectability at BRI companies in 2015-2018.

7. Debtor age has a negative effect on the quality of credit collectability at BRI companies in 2015-2018.
8. *Loan To Sales* has a negative effect on the quality of BRI's credit collectability in 2015-2018

From the results of the analysis that has been explained, BRI's Microfinance division must pay more attention to the condition of collectability which has an influence on the possibility of a decline in collectability quality.

The explanation for the finding of the relationship between independent variables that has a positive effect on the collectability of the possibility of analysis of a business financing loan must be truly valid, as an outline of a business financing to the debtor is not solely the debtor who is being financed, but the effort, we can take an example of how much large debtor agrees to be able to complete the documents as a condition for loan approval, if the debiur agrees to automatically pay his obligations every month it is not an obstacle that can cause the debtor to be stuck in payment. In terms of how many loans are obtained, the debtor should already have an idea of how much nominal is obtained and how much is debiur able to pay each month, what if the nominal value is more, the submission is greater than the nominal that should be, the possibility for the debtor to default is very large. Age also influences the maturity of debtors in managing the business so that business financing is not misused. BRI also has an internal audit where the audit will sample new debtors as well as bad debtors, a question will arise why the debtor can experience defaults in payments, the answer is very logical if the debtor is given business financing able to meet Documents (DOC), Total Dependent (JMLT), Loans (LOAN), Loan To Sales (LTS), Guarantee Ratio (RJ), Years (THN), Debtor Age (AGE), and Turnover (SALES) the collectability level will be very small,

From the results of the analysis explained, the BRI microfinance division must pay more attention to the condition of Documents (DOC), Total Dependents (JMLT), Loans (LOAN), Loan To Sales (LTS), Guarantee Ratio (RJ), Years (THN).), Debtor's Age (AGE), and Turnover (SALES) which have an influence on the possibility of collectability.

5.2 Suggestion

Based on the research results, the researcher has suggestions that might be taken into consideration, as follows:

1. For BRI Bank:
 - a. It is better if BRI's microfinance division continues to improve itself by following the existing digital economy era. So that competition is not only between micro finance companies, but it is hoped that microfinance companies will be able to compete with online businesses. And prioritizing services for small businesses owned to increase sales and it is recommended that management have an online-based system to make it easier for debtors to apply for business financing loans. so that it is more advanced in the development of existing technology.
 - b. BRI's microfinance division should further optimize the debtor for eligibility in proposing business financing to reduce the possibility of a decline in the quality of credit collectability, in order to avoid excessive defaults which can result in a high collectability value which will increase the decline in collectability quality. BRI's microfinance division must also pay attention to company efficiency, so as not to incur large costs to obtain optimal results which will increase the possibility of a decrease in the quality of credit collectability. And companies in the microfinance sector should also minimize the minimum proportion of data to prevent collectability, because all of this can increase operational costs so as to reduce existing profits.
 - c. It is hoped that the BRI Unit Tebet Timur will be more selective in deciding which debtor candidates will receive credit loans by considering various things, especially

the business turnover of the prospective debtor and the frequency / intensity of obtaining credit loans. The prospective debtor's business condition in the future must be predicted because there is a possibility of success or failure of the business in the future and this affects the business turnover value which is one of the benchmarks for the ability to pay credit. BRI should prioritize lending to prospective borrowers who have a good past record in fulfilling their loan installment obligations. That is, debtors who have obtained loans in the past and have never made arrears in installment payments should be prioritized in providing credit loans. Meanwhile, debtors who are new and have never obtained a loan in the past should pay more attention to their ability and seriousness in paying credit installments before granting credit applications. All of these considerations are expected to reduce and even eliminate cases of delinquent loans (non-performing loans) so that the performance, liquidity and profitability of the bank will be better.

REFERENCE LIST

- Algifari, 1997. Regression Analysis, Theory & Solutions, Edition I, BPFE. Yogyakarta.
- Oktaviani and Goretti, 2012, Analysis of Credit Management to Minimize Non-Performing Loans at the Panca Dana Batu Rural Bank, Journal of the Faculty of Administrative Sciences, Brawijaya University, Malang.
- Damajanti and Karim. 2017. The Effect of Tax Knowledge on Individual Taxpayer Compliance. Journal of Economics and Business Solutions, 1 (1), 1-15.
- Suyanto and Sutinah, 2005. Social Research Methods: Various Alternative Approaches. Jakarta: Golden.
- Herman. 2006. Financial Markets and Financial Institutions. Jakarta: Earth Literacy
- Dendawijaya, Lukman. 2005. Banking Management, Second Edition. Bogor Jakarta: Second Edition, Ghalia Indonesia.
- Hasibuan, Malayu. 2004. Basics of Banking. Jakarta: Earth Literacy.
- Cashmere. 2001. Banking Management. Jakarta: Raja Grafindo Indonesia
- Cashmere. 2004. Banks & Other Financial Institutions. Jakarta: Raja Grafindo Indonesia
- Kuncoro, Mudjarad. 2013. Research Methods for Business & Economics. Jakarta: Erlangga.
- Nasution, Edwin. 2006. Quantitative Research Process. Jakarta: Publishing Institution.
- Indriantoro and Supomo. 1999. Business Research Methodology For Accounting & Management. Yogyakarta: BPFE-YOGYAKARTA.
- Rochaety, Eti, Tresnati, Ratih, and Latief, H. Abdul Madjij. 2009. Business Research Methodology: With SPSS Applications. Jakarta: Mitra Wacana Media.
- Now, Uma. 2006. Research Methodology For Business. Jakarta: Four Salemba.
- Soemarso. 2007. Comprehensive Approach Taxation. Jakarta: Four Salemba.
- Sugiyono. 1999. Business Research Methods. Bandung: CV. Alfabeta.
- Suharso, Pugh. 2009. Quantitative Research Methods For Business: Approaches *Philosophy and Practical*. Jakarta: Index.
- Suharto, Girisuta and Miryanti. 2002. Engineering Research Methodology. Yogyakarta: Andi.
- Supranto, Johannes. 2013. Operations Research for Decision Making. Depok: Raja Grafindo Persada.
- Soejono, H. Abdurrahman. 2005. Research Methods: A Thought and Application. Jakarta: PT. Adi Mahasatya.
- Taha, Hamdy A. 1996. Operations Research. Jakarta: Binarupa Literacy.
- Umar, Husein. 1997. Accounting Research. Jakarta: PT Gramedia Pustaka Utama.