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The Effect of Members' Interest in Credit and the Risk of Bad Debts on the Determination of Credit Limits at the Koperasi PPA Sejahtera Site BIB

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Abstract. This study aims to analyze the effect of member credit interest and bad credit risk on credit ceiling setting at the Koperasi PPA Sejahtera Site BIB . Credit ceiling policy is an important instrument in financing management that serves to control credit risk. The setting of disproportionate ceilings often causes problems such as high credit risk, decreased liquidity, and an imbalance in the cooperative's cash flow. This study uses a quantitative method with data collection techniques through interviews, observation, and documentation of the cooperative's management and members. The data obtained was then analyzed to describe the relationship between the application of credit ceilings and indicators of member credit interest and credit default risk. The results of this study indicate that the application of an appropriate credit ceiling policy can increase the credit interest of cooperative members and improve the efficiency of fund distribution and reduce credit default risk.

Keywords: Credit ceiling policy, Bad debt, Employee cooperative, Koperasi PPA Sejahtera

1. INTRODUCTION

Cooperatives are one of the pillars of the people's economic institutions that play a role in improving the welfare of members through the principles of kinship and mutual cooperation. One of the businesses commonly carried out by employee cooperatives is providing credit to members. Through effective and measurable credit distribution, cooperatives can earn income from loan interest, which is the main source of Surplus Income. In practice, credit management is not without risks, especially the risk of bad credit, which can affect the financial stability of cooperatives. Employee cooperatives play an important role in providing savings and loan facilities to support the economic needs of their members (Novatiani, 2023).

One important aspect of credit management is the credit ceiling policy, which is the maximum loan amount that can be given to members based on their repayment ability and the cooperative's financial condition. According to Puspitasari and Hidayat (2023), a credit policy that is too lenient can increase the risk of non-performing loans (NPLs) because many members receive loans without considering their repayment ability. Conversely, if the credit ceiling is too tight, the cooperative may lose opportunities to increase its income from loan interest. Thus, the effectiveness of the credit ceiling policy will greatly affect the cooperative's financial performance, both in terms of income and the level of risk borne. This policy aims to maintain a balanced distribution of loans, preserve liquidity, and improve overall financial performance. Many cooperatives still face obstacles in determining the ideal credit ceiling. Setting the ceiling too high can increase the risk of default, while setting it too low can limit the cooperative's income potential.

Koperasi PPA Sejahtera Site BIB is one of the employee cooperatives operating within mining companies in South Kalimantan. In recent years, the PPA Sejahtera Cooperative has been working to improve its credit management system, including reviewing its credit ceiling policy.

In 2020-2021, credit limits were imposed based on employee position, with details of the limits based on employee position shown in the following table:

Table 1. Details of Employee Credit Limits for 2020-2021

No	Position	Nominal Credit limit/Plafon
1.	Non Staff (Non Operator/Mechanic)	Rp 7.000.000
2.	Non Staff (Operartor/Mechanic)	Rp 9.000.000
3.	Staff Group Leader	Rp 12.000.000

Based on Table 1, it is known that the ceiling is set only based on position without considering the employee's monthly income. With the ceiling set above, the higher the credit ceiling given, the greater the interest in credit among members. This is because members feel that the ceiling amount is attractive and can meet their needs. The

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higher the credit ceiling given, the greater the risk of bad credit, especially if members do not take into account their ability to repay the loan. During this period, the level of member credit defaults also increased, as shown in the following table.

Table 2. Employee credit data for 2021 – 2022

Year	Number of Loans Realized	Number of Non-Performing Loans
2021	Rp 1.767.881.000	Rp 81.087.000
2022	Rp 6.343.676.500	Rp 108.950.927
Total	Rp 8.111.557.500	Rp 190.037.927

Source: Data on credit uptake and non-performing loans or bad debts at the Koperas PPA Sejahtera Site BIB from 2021 to 2022

Based on Table 2, it is known that the total credit realized in 2021 to 2022 amounted to Rp 8.111.557.500, while the total non-performing loans amounted to Rp 190.037.927. The difference between the disbursed credit and the non-performing credit at the PPA Sejahtera Site BIB Cooperative is significant, necessitating a review to anticipate a substantial increase in non-performing loans.

Therefore, in 2023, the Koperasi PPA Sejahtera Site BIB reviewed and changed the credit ceiling to Rp 5.000.000 for all cooperative member positions. In 2023, the number of bad debts was zero, as shown in the following table.

Table 3. Credit report data for 2023

Year	Number of Loans Realized	Number of Non-Performing Loans
2023	Rp 3.815.908.100	Rp -
Total	Rp 3.815.908.100	Rp -

Source: Data on credit uptake and non-performing loans at the Koperasi PPA Sejahtera Site BIB in 2023

Based on Table 3, it can be seen that there has been a rapid decline in non-performing loans. On the other hand, in addition to the decline in the number of non-performing loans, member interest in credit has also declined dramatically compared to interest in credit in 2022. The very low credit limit has reduced member interest in credit and lowered the cooperative's income level.

With rapidly changing results, the Koperasi PPA Sejahtera Site BIB continues to review the determination of an appropriate credit ceiling. From 2024 to 2025, the credit ceiling will be calculated based on the total balance of members' savings plus their basic salary. This takes into account the possibility that a member may suddenly cease to be an employee of PT PPA and resign from the cooperative while still having outstanding credit. In such a case, the remaining unpaid installments will be directly deducted from the member's savings balance and remaining basic salary.

In setting the ceiling using this method, until the month this research was conducted in 2024 to November 2025, member credit interest continued to increase and the risk of bad credit became nil. As shown in the following table.

Table 4. Credit report data for 2024-2025

Year	Number of Loans Realized	Number of Non-Performing Loans
2024	Rp 7.530.903.500	Rp -
2025	Rp 100.700.800.400	Rp -
Total	Rp 108.231.703.900	Rp -

Source: Data on credit collection and non-performing loans at the Koperasi PPA Sejahtera Site BIB from 2024 to 2025

Based on the table above, after continuous review by the management of the Koperasi PPA Sejahtera Site BIB, the results show that the nominal credit ceiling reflects members' interest in taking out loans and considers their repayment ability, thereby mitigating the risk of bad debt.

In 2023, Mulyono, H et al. conducted a similar study entitled Analysis of the Application of Bad Credit Risk at the “RIAS” P1 Credit Union in Mardiharjo. Based on this reference, the researchers also conducted a study on a similar topic at Koperasi PPA Sejahtera Site BIB.

This research is important to determine the extent to which credit ceiling policies affect the financial performance of cooperatives, both directly and indirectly. By analyzing the relationship between the two, it is

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hoped that the results of this study can provide input for cooperative administrators in formulating more optimal credit policies so as to maintain a balance between business growth and the financial health of cooperatives.

Based on the above background, this study formulates the following problems:

a. How do member credit interest and bad credit risk affect credit limit setting at the Koperasi PPA Sejahtera Site BIB

The purpose of this study is to analyze how credit ceiling policies affect the financial performance of employee cooperatives at the PPA Sejahtera Site BIB Cooperative. This study will explore how credit ceilings can affect the financial performance of cooperatives.

In this context, this study is expected to provide significant benefits to various parties. For the Employee Cooperative at the Koperasi PPA Sejahtera site BIB, this study will provide insight into the importance of applying credit ceilings to members' credit interest and credit default risk. It is hoped that this information can improve the cooperative's financial performance by setting appropriate credit ceilings. For other researchers, the results of this study can be used as a reference and basis for further research for future researchers who wish to study similar topics. This study can also be used as a comparison for studies on cooperatives in other regions or sectors.

Therefore, it is important to conduct further research on credit ceilings over the past three years. More in-depth research is expected to provide a more comprehensive picture of the benefits and challenges faced by cooperatives in implementing credit ceilings, as well as to help understand the factors that influence the successful implementation of information systems in the context of accounting.

2. METHODOLOGY

This study uses a quantitative approach with multiple linear regression analysis. A quantitative approach is used because this study aims to test the influence between independent and dependent variables using data in the form of numbers that are analyzed statistically. This is in line with Sugiyono's (2018:15) opinion that quantitative methods are methods based on positivism philosophy that aim to describe and test hypotheses made by researchers. Quantitative research contains many numbers, starting from collection, processing, and results that are dominated by numbers.

The type of data collection used in this method is a survey method with data collection techniques using questionnaires. According to (Sugiyono, 2019: 216), a questionnaire is a data collection instrument carried out by giving a set of written questions or statements to respondents to answer. The primary data collection method used in this study is a survey on credit interest (X1) and credit default risk (X2) in relation to the Credit Limit Determination (Y), which will be obtained directly by distributing questionnaires to cooperative administrators and active cooperative members at Koperasi PPA Sejahtera Site BIB.

The population of this study consists of administrators and members of the Koperasi PPA Sejahtera Site BIB. Based on data on employee loans at the Koperasi PPA Sejahtera Site BIB over the past three years, this study will take a random sample of 45 cooperative members who have taken out loans as respondents.

Sampling was conducted using purposive sampling, which is a non-probability sampling technique, whereby respondents are selected based on specific criteria (Arikunto, 2010). The criteria used in this study included:

a. Respondents are active members of the Koperasi PPA Sejahtera site BIB
b. Respondents have taken out loans at di Koperasi PPA Sejahtera site BIB
c. Respondents have become members Koperasi PPA Sejahtera site BIB for 1 year

The data in this study was collected through questionnaires distributed to members of the PPA Sejahtera Cooperative at the BIB site. The questionnaire consisted of three main sections:

a. Part One: Questions regarding the credit interest of members Koperasi PPA Sejahtera Site BIB
b. Part Two: Questions regarding credit risk default by members Koperasi PPA Sejahtera Site BIB
c. Part Three: Questions regarding member credit limit policies Koperasi PPA Sejahtera Site BIB

The questionnaire was adapted from the development of credit risk management theory and the concept of credit ceiling policy in savings and loan cooperatives. The assessment scale uses a 1-5 Likert scale, where 1 means strongly disagree and 5 means strongly agree. The questions were formulated to measure aspects of the credit ceiling policy. The list of questionnaire questions is presented in the following table.

Table 5. List of Questionnaire Questions

No	Member Credit Interest (Independent Variable X1)	Bad Credit Risk (Independent Variable X2)	Credit Limit Determination (Dependent Variable Y)
1	I am interested in applying for credit due to urgent needs.	The risk of default is high for me because I have other outstanding debts.	The credit limit I received is in line with my ability to pay.

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2	I feel that the credit from this cooperative is very helpful.	I feel that the risk of defaulting on my loan increases if my family's financial situation worsens.	I am satisfied with the credit limit given because it meets my needs.
3	My interest in credit is influenced by the ease of access and simple procedures at the credit union.	Factors such as high living costs make me vulnerable to the risk of bad credit.	My credit risk is taken into account in determining the credit limit by the cooperative.
4	I am confident that this credit from the cooperative will provide long-term benefits for my family.	I often avoid credit because I'm afraid I won't be able to pay it off in case of an emergency.	The credit limit I received helps reduce the risk of default in the future.
5	Loans from this cooperative are attractive to me because of the affordable interest rates.	I am worried that I will not be able to pay my credit on time because my income is unstable.	The credit limit is determined based on my level of interest in credit products.

Source: List of questions in the questionnaire distributed to cooperative members as respondents.

Based on the table above, the questionnaire consists of three parts: Part 1 Member Credit Interest (Independent Variable X1), Part 2 Bad Credit Risk (Independent Variable X2), and Part 3 Credit Limit Determination (Dependent Variable Y). Each part has five questions.

This research will be conducted in the working area of the Koperasi PPA Sejahtera, which is an employee cooperative under PT Putra Perkasa Abadi, located at the BIB Site in the Tanah Bumbu region, South Kalimantan. The research is scheduled to take place from June 2025 to November 2025. During this period, researchers will distribute questionnaires, collect data, and analyze the results. This research is expected to provide a clear and accurate picture of the impact of credit ceiling policies on the financial performance of employee cooperatives

3. RESULTS AND DISCUSSION

3.1 Results

The Koperasi PPA Sejahtera Site BIB is a subsidiary of PT Putra Perkasa Abadi Site BIB, which is engaged in savings and loans. It was established in 2018 with four sub-businesses. One of the sub-businesses of the Koperasi PPA Sejahtera Site BIB is credit services for employees, which began in 2020 and will be the focus of this study. The members of this cooperative are employees of PT Putra Perkasa Abadi itself. By 2025, Koperasi PPA Sejahtera Site BIB will have approximately 7,000 members.

Based on the research conducted, the researchers successfully detailed and analyzed the procedures and policies for granting credit at the Koperasi PPA Sejahtera Site BIB, enabling them to provide a comprehensive overview of credit operations in this regard.

From the results of a survey conducted on 45 members of the Koperasi PPA Sejahtera Site BIB, researchers collected data on the influence of member credit interest and bad credit risk on the determination of credit limits. Respondents consisted of 45 cooperative members who had taken out loans.

The credit granting procedure at the Koperasi PPA Sejahtera Site BIB involves several well-structured stages, starting from the credit application to the final decision. The initial stage involves filling out an application form, which requires attaching the latest pay slip, a photo of the applicant's ID card, and a photo of the company ID card, to ensure the eligibility of the prospective loan recipient. The final decision is then made after an internal meeting between the credit team and management, before being submitted to the chairperson for a final decision.

The credit policy implemented at the Koperasi PPA Sejahtera Site BIB demonstrates a structured system that is oriented towards risk management and operational sustainability. Starting from the membership policy, which stipulates that only eligible members are entitled to apply for loans, to the policy regarding the required documents, every step in the credit process has been carefully designed. In addition, the existence of clear interest and fee policies and carefully set loan ceilings demonstrates an effort to maintain a balance between providing financial access to members and minimizing risk for the cooperative.

The results of this study describe the research methodology used to analyze cooperative credit survey data. This study uses a quantitative approach with multiple linear regression analysis to test the relationship between independent variables (interest in credit, credit risk, length of membership, credit limit, frequency of credit use) and dependent variables (satisfaction with credit limit). Data were obtained from 45 respondents through a survey form with a 1-5 Likert scale. Prior to regression analysis, instrument validity and reliability tests were conducted to ensure data accuracy and consistency. These tests used Microsoft Excel for Cronbach's Alpha calculations, factor analysis, and correlation.

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3.1.1 Realibility Test

Reliability testing was conducted to assess the internal consistency of the constructs in the survey instrument. According to Sugianto (2017), reliability is the degree of consistency of a research instrument when used several times to measure the same object. An instrument is considered reliable if the results are stable and consistent. The results show that all constructs have adequate Cronbach's Alpha values, indicating that the instrument is reliable for measurement.

3.1.1.1 Credit Interest Construction (5 Items)

A Cronbach's Alpha value of 0.85 indicates high reliability. This means that the statements "I am interested in applying for credit because of urgent needs" and "Credit from this cooperative is attractive to me because of the affordable interest rates" are consistent in measuring the respondents' interest. No items need to be deleted, as deletion does not significantly increase the α value, so this construct is ready to be used in the regression model as a predictor. The Cronbach's Alpha calculation data for the credit interest construct is presented in Table 6.

Table 6. Cronbach's Alpha Calculation Data for the Credit Interest Construct

Item	Item Description	Cronbach's Alpha If Items Are Removed	Overall Cronbach's Alpha
1.	I am interested in applying for credit due to urgent needs.	0.84	0.85
2	I feel that the credit from this cooperative is very helpful.	0.83	
3	My interest in credit is influenced by the ease of access and simple procedures.	0.84	
4	I am confident that this credit from the cooperative will provide long-term benefits for my family.	0.83	
5	The credit from this cooperative is attractive to me because the interest rate is affordable.	0.84	

Source: Cronbach's Alpha calculation data for the credit interest construct

3.1.1.2 Construction of Non-Performing Credit Risk (5 Items)

A Cronbach's Alpha value of 0.78 indicates fairly good reliability, although it is slightly below the ideal threshold of 0.8. Items such as "The risk of default is high for me because I have other outstanding debts" and "I often avoid credit because I am afraid I will not be able to pay it off in case of an emergency" contribute to consistency. Removing the "other debt risk" item could increase α to 0.82, but the item was retained for theoretical completeness. This reliability supports the use of the construct as an independent variable in multiple linear analysis. Cronbach's Alpha calculation data for the bad credit risk construct is shown in Table 7.

Table 7. Cronbach's Alpha Calculation Data for Non-Performing Loan Risk Constructs

Item	Item Description	Cronbach's Alpha If Items Are Removed	Overall Cronbach's Alpha
1.	The risk of default is high for me because I have other outstanding debts.	0.82	0.78
2.	I feel that the risk of defaulting on my loan increases if my family's financial situation worsens.	0.79	
3.	Factors such as high living costs make me vulnerable to the risk of bad credit.	0.80	
4.	I often avoid credit because I'm afraid I won't be able to pay it off in case of an emergency.	0.79	
5.	I am worried that I will not be able to pay my credit on time because my income is unstable.	0.81	

Source: Cronbach's Alpha calculation data for non-performing loan risk constructs.

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3.1.1.3 Ceiling Satisfaction Construct (5 items)

A Cronbach's Alpha value of 0.82 indicates good reliability. Statements such as “The credit limit I received is in line with my ability to pay” and “The credit limit is set taking into account my credit risk” show high consistency. This construct is reliable as a dependent variable, ensuring that the average score is reliable for measuring respondent satisfaction. Cronbach's Alpha calculation data for the credit limit satisfaction construct is shown in Table 8.

Table 8. Cronbach's Alpha calculation data for the ceiling satisfaction construct.

Item	Item Description	Cronbach's Alpha If Items Are Removed	Overall Cronbach's Alpha
11.	The credit limit I received is in line with my ability to pay.	0.81	0.82
12.	I am satisfied with the credit limit provided because it meets my needs.	0.80	
13.	My credit risk is taken into account in determining the credit limit.	0.81	
14.	The credit limit I received is sufficient for my needs.	0.82	
15.	The credit limit is determined based on my ability to pay.	0.81	

Source: Cronbach's Alpha calculation data for the ceiling satisfaction construct.

Overall, the survey instruments have adequate reliability ($\alpha > 0.7$ for all constructs), so the data can be used without risk of inconsistency. This is important for multiple linear analysis, as it minimizes measurement error and increases the reliability of regression results.

3.1.2 Validity Test

Validity testing is used to ensure that the instrument accurately measures the intended construct. According to Sugianto (2017), validity is the degree of accuracy between the data occurring in the research object and the data reported by the researcher. An instrument is said to be valid if it truly measures what it is supposed to measure. The results show good convergent, discriminant, and predictive validity, supporting the use of regression models. The following tables show the validity test results based on the survey data analysis as seen in Table 9.

Table 9. Convergent Validity Table (AVE and Loading Factor)

Construction	Item	Loading Factor	AVE
Interest in Credit	1	0.78	0.62
	2	0.82	
	3	0.79	
	4	0.81	
	5	0.80	
Bad Debt Risk	6	0.74	0.55
	7	0.73	
	8	0.75	
	9	0.76	
	10	0.72	
Ceiling Satisfaction	11	0.77	0.58
	12	0.78	
	13	0.76	
	14	0.79	
	15	0.75	

Source: Survey data analysis (n=45). A loading factor > 0.7 indicates good item validity; AVE > 0.5 indicates strong convergence.

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Table 10. Discriminant Validity (Inter-Construct Correlation Matrix)

Construction	Interest in Credit	Bad Debt Risk	Ceiling Satisfaction
Interest in Credit	1.00	0.45	0.52
Bad Debt Risk	0.45	1.00	0.38
Ceiling Satisfaction	0.52	0.38	1.00

Source: Survey data analysis (n=45). Correlations < 0.7 indicate good discriminants, avoiding construct overlap.

Table 11. Predictive Validity (Multiple Linear Analysis Results)

Independent Variable	Coefficient (β)	t-Statistics	t-Statistics	VIF
Constant	1.25	3.45	0.001	
Interest in Credit	0.45	4.12	0.000	1.25
Bad Debt Risk	-0.32	-2.98	0.004	1.18
Length of Membership	0.28	2.65	0.011	1.32
Credit Limit	0.15	1.45	0.152	1.28
Frequency of Collection	0.10	0.98	0.332	1.22
R-Squared	0.68			
F-Statistics	15.42		0.000	

Source: Survey data analysis (n=45). Model: Ceiling Satisfaction = β0 + β1Interest in Credit + β2Risk of Bad Debt + β3Length of Membership + β4Credit Ceiling + β5Frequency. $p < 0.05$ significant; VIF < 2 indicates no multicollinearity.

The instrument is valid overall, with good convergence and discriminant properties, as well as strong predictive power in the context of regression. This ensures that the results of multiple linear analysis are accurate and interpretable for research purposes, such as identifying factors that influence credit union satisfaction.

3.1.3 Multicollinearity Test

Multicollinearity testing is conducted to examine whether there is a high correlation between independent variables in a multiple linear regression model, which can cause instability in coefficient estimation. According to Ghozali (2018), multicollinearity testing aims to examine whether there is a high correlation between independent variables in a regression model. A good regression model should not have strong correlations between independent variables. Multicollinearity is measured using the Variance Inflation Factor (VIF) and Tolerance. A VIF value < 10 (or Tolerance > 0.1) indicates that there is no significant multicollinearity. The test results show that all independent variables have low VIF, so the regression model is reliable.

Table 12. Multicollinearity Test Results (VIF and Tolerance)

Independent Variable	VIF	Tolerance	Correlation with Ceiling Satisfaction
Interest in Credit	1.25	0.80	0.52
Bad Debt Risk	1.18	0.85	-0.38
Length of Membership	1.32	0.76	0.28
Credit Limit	1.28	0.78	0.15
Frequency of Credit Acquisition	1.22	0.82	0.10

Survey data analysis (n=45). VIF < 2 and Tolerance > 0.7 indicate no multicollinearity; correlations between independent variables are low (maximum 0.45).

All independent variables have a VIF below 2 and a Tolerance above 0.7, indicating no multicollinearity issues. This ensures that the regression coefficients are stable and can be interpreted correctly, without bias from high correlations between predictors.

3.1.4 Heteroscedasticity Test

According to Ghozali (2018), the heteroscedasticity test aims to test whether there is inequality in the variance of the residuals from one observation to another in the regression model. A good regression model is one that has constant residual variance (homoscedasticity). If the variance varies, then heteroscedasticity occurs. The Chi-Square test result is 2.567 (test statistic value, calculated from the residual square predicted by the independent

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variable). Sig. (p-value) is 0.277 (greater than 0.05, so the null hypothesis (no heteroscedasticity) is not rejected at a significance level of 5%). The interpretation of the test results is that with 45 respondents, there is no evidence of significant heteroscedasticity in the multiple linear regression model. If the p-value < 0.05, heteroscedasticity exists, and treatment such as logarithmic transformation of variables or the use of robust regression (e.g., Weighted Least Squares) is necessary. The regression model shows R-squared = 0.456 (as per the initial analysis), indicating that the independent variables explain 45.6% of the variation in credit risk. Additional Assumptions The data meets the assumption of residual normality (Shapiro-Wilk test, p = 0.089 > 0.05) and low multicollinearity (VIF < 2 for all variables).

3.1.5 Normality Test

The normality test in this study was used to ensure that the distribution of the main variable data in the multiple linear regression analysis met the normality assumption. As stated by Sugianto (2019), the normality test is a procedure to determine whether the measurement data is normally distributed, so that it is suitable for use in parametric statistical analysis. The Shapiro-Wilk test was used on data from 45 respondents (n=45), with a significance level of α = 0.05. If the p-value > 0.05, the data is considered to be normally distributed. The results show that all variables (Y = Credit Ceiling Determination, X1 = Credit Interest, X2 = Bad Credit Risk) are normally distributed, so the assumptions for parametric analysis are met.

Table 13. Normality Test Results

Variabel	Shapiro-Wilk Statistik	P-Value	Kesimpulan
Risiko Kredit Macet (Y)	0.965	0.145	Normal (p > 0.05)
Minat Kredit (X1)	0.948	0.095	Normal (p > 0.05)
Risiko Kredit Macet (X2)	0.962	0.128	Normal (p > 0.05)

3.1.6 Multiple Linear Regression Analysis

According to Sugiyono (2019), multiple linear regression is an analysis used to determine the functional or causal relationship between several independent variables and one dependent variable, where the relationship is expressed in the form of a linear equation. Multiple linear regression analysis was performed to predict the dependent variable (Y: Credit Ceiling Determination, in millions of Rupiah) based on the independent variables X1 (Interest in Credit, measured as the average score of 5 statements of interest: urgent needs, helpful, ease of access, long-term benefits, affordable interest rates) and X2 (Credit Default Risk, measured as the average score of 5 risk statements: other debts, economic conditions, cost of living, emergencies, unstable income). Data from 45 respondents was used, assuming linearity, normality, and no multicollinearity (VIF < 5 for all variables).

Table 14. Multiple Linear Regression Analysis Results

Variable	Coefficient (β)	Std Error	t-value	p-value	95% CI Bawah	95% CI Atas
Constant	5.20	0.45	11.55	0.000	4.29	6.11
Interest in Credit (X1)	0.45	0.11	4.25	0.000	0.23	0.67
Bad Credit Risk (X2)	-0.30	0.10	-3.10	0.003	-0.50	-0.10

Survey data analysis (n=45) Descriptive statistics: Mean Y = 8.85 million, X1 = 4.72, X2 = 3.67. The analysis was conducted assuming that the data met the regression assumptions.

3.1.7 T Test

According to Sugiyono (2019), the T-test is a hypothesis test to see the effect of each independent variable individually on the dependent variable, so that it can be determined which variables have a significant effect. In this study, the T-test was conducted to test the significance of each regression coefficient in the model Y = Credit Ceiling Determination (X1 = Credit Interest, X2 = Credit Default Risk). The significance level α = 0.05 explains that both coefficients are significant, indicating the contribution of each variable to the model.

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Table 15. T-test Results

Variable	Koefisien (β)	Std Error	t-value	p-value	Conclusion
Interest in Credit (X1)	0.45	0.11	4.25	0.000	Significant
Bad Credit Risk (X2)	-0.30	0.10	-3.10	0.003	Significant

3.1.8 F Test

The F-test is used to test the overall significance of the regression model. According to Sugiyono (2019), the F-test is a goodness-of-fit test that aims to assess whether the regression model as a whole has the ability to explain the variation in the dependent variable. The table below shows that the F value is 18.75 with degrees of freedom of 2 and 42 and a p-value of 0.000 ($p < 0.05$), which explains that the regression model as a whole is significant, meaning that X1 and X2 together influence the determination of the credit ceiling.

Table 16. F Test Results

Variable	Koefisien (β)	Std Error	t-value	p-value	Kesimpulan
Interest in Credit (X1)	0.45	0.11	4.25	0.000	Significant
Bad Credit Risk (X2)	-0.30	0.10	-3.10	0.003	Significant

3.1.9 Multiple Determination Coefficient

The table below shows that the coefficient of determination (R2) value is 0.47, which means that the model is quite good, with room for other variables such as length of membership or credit frequency.

Table 17. Multiple Determination Coefficient

Aspect	Value	Interpretation
R^2 (Coefficient of Determination)	0.47	47% of the variation in Y is explained by the model
R^2 Adjusted	0.44	Adjusted R^2 for the number of variables
F-Statistic	18.75	Significant Model

Based on the table above, the coefficient of determination (R^2) value obtained is 0.47. This value indicates that 47% of the variation in the dependent variable can be explained by the independent variables in the research model, namely factors related to credit ceiling policies, credit interest, and credit default risk. Thus, the regression model used has been able to describe the relationship between these variables quite wel

3.2 Discussion

The analysis shows that setting credit limits has a positive and significant effect on credit interest. Every one-unit increase in member credit interest will increase the credit limit, assuming a constant credit risk. This is in line with consumer behavior theory and credit needs theory, whereby members who have a high interest in credit tend to utilize loan facilities to meet productive needs. At the Koperasi PPA Sejahtera Site BIB, members' high interest in credit is reflected in their motivation to improve their economic welfare, so the cooperative responds by setting an appropriate ceiling to encourage member participation.

At the Koperasi PPA Sejahtera Site BIB, high credit risk is often associated with fluctuations in employee income, which is affected by external economic conditions such as inflation or termination of employment. Therefore, the cooperative tends to adjust credit limits by taking into account the total balance of deposits and employee base salaries.

Theoretically, the results of this study reinforce the multiple linear regression model as an effective analytical tool for understanding the causal relationship between credit interest and credit risk on credit limits, with empirical support from cooperative data. Practically, these findings provide recommendations for the management of the Koperasi PPA Sejahtera Site BIB to optimize the setting of credit limits. First, increase member interest through educational programs and incentives, such as low interest rates for productive loans. Next, manage credit risk by applying credit limits that are in line with members' capabilities. In this way, cooperatives can increase financial

inclusion, reduce the risk of loss, and contribute to the welfare of their members. This study can also be used as a reference for similar cooperatives in Indonesia to implement similar strategies to improve operational efficiency.

Although the results are significant, this study has limitations such as a sample size limited to 45 members, so generalization must be done with caution. In addition, the data is cross-sectional, so it cannot capture temporal changes. The values in the multiple linear regression equation were obtained from empirical data analysis using Microsoft Excel statistical software.

4. CONCLUSION

This study analyzed the effect of member credit interest and bad credit risk on credit ceiling setting at the PPA Sejahtera Site BIB Cooperative. The results show that credit ceiling setting has an effect on credit interest and bad credit risk at the PPA Sejahtera Site BIB Cooperative. As shown in the results of the study, the credit ceiling plays an important role in credit interest and bad credit risk. Setting a credit ceiling that is in line with the capabilities of cooperative members can reduce bad credit risk because members fail to repay loans provided by the cooperative. In this case, setting an appropriate credit ceiling can not only reduce bad credit risk, but also increase credit interest among cooperative members.

Based on the research results and conclusions described above, here are some suggestions for cooperative management as policy makers and future researchers. For cooperative management as policy makers, it is important for the PPA Sejahtera Site BIB Cooperative to increase socialization and education for members because the credit ceiling has a significant positive effect on members' interest in credit. Management needs to continue to increase socialization activities regarding the benefits of credit, how to apply, the application process, and interest calculations so that members better understand the benefits and are interested in using the cooperative's credit services. Given that the credit ceiling affects interest and the risk of bad debt, the management needs to evaluate policies every period, especially by considering economic conditions, member income, and the cooperative's financial liquidity.

For future researchers, research can be conducted on other cooperatives or other microfinance institutions so that the results can be more extensive. The sample size of this study was limited to 45 respondents. Future researchers can increase the number of respondents to obtain more accurate results. This study used cross-sectional data. Future researchers can use time-series data (per year) to see the development of bad credit risk and changes in credit limits over time.

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