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The Effect of Total Deposits and Loan Arrears on the Income of CU Maju Bersama Cooperatives in Siantar District (Before and During Covid-19)

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Abstract
This study aims to determine the effect of total deposits and loan arrears on the income of CU Maju Bersama cooperatives in siantar district (before and during covid-19). This research method uses a quantitative research approach. The result shows that the variable amount of savings has no significant effect on the income of the CU Maju Bersama Cooperative in Siantar District. Loan arrears variable has no significant effect on the income of CU Maju Bersama Cooperative in Siantar District. (Before and During Covid-19). The test results simultaneously state that the amount of deposits and credit arrears together has a significant effect on the income of the CU Maju Bersama cooperative in Siantar District (Before and During Covid-19). The results of the R2 test state that there is an effect of the amount of deposits and credit arrears on the income of the CU Maju Bersama cooperative in Siantar District.

Keywords
deposit; credit arrangements; cooperative income

I. Introduction

Financial Institutions are all entities whose activities are in the financial sector, conducting, collecting and distributing funds to the public, especially to finance company investments. Financial institutions can be grouped into bank financial institutions (LKB) and non-bank financial institutions (LKBB). Bank financial institutions consist of central banks, commercial banks, rural credit banks, and joint venture banks, while non-bank financial institutions can be grouped into financing and investment institutions and selling securities and other financial institutions. Financing and investment institutions and selling securities consist of pawnshops, insurance, pension funds, and credit unions (MSMEs).

CU Maju Bersama is one of the Credit Unions located on Jl. Asahan Km IV, Siantar District. With the Covid-19, many CU Maju Bersama members were unable to pay the installments so that CU Maju Bersama experienced a decrease in monthly income. In 2019 the number of members of the Maju Bersama Credit Union Cooperative reached 256 people, then in 2020 it reached 355 people. The data obtained from the Maju Bersama Credit Union Cooperative are as follows:

Table 1. Progress Report on Total Deposits, Loan Arrears and Income of CU Maju Bersama Cooperative 2018-2020

No	Year	Total Deposit (Rp)	Credit Arrears (Rp)	Income (Rp)
1	2018	96,083,716	1,987,721,721	694,939,200
2	2019	190,250,870	2,414,382,821	780,718,825
3	2020	86,634,320	3,651,744,921	843,978,175

Source: CU Maju Bersama Cooperatives, 2020

Based on the data above, we can see that the number of deposits before COVID-19 from 2018 to 2019 has increased. Loan arrears increased from 2018 to 2019. And so did cooperative income, which increased before covid-19. The number of deposits during covid-19 from 2019 to 2020 has decreased, credit arrears from 2019 to 2020 have increased, and so the income of cooperatives has increased. From the data above, we can see that the impact of Covid-19 on cooperatives is very large

II. Review of Literature

2.1 Definition of Income

Income is an increase in the number of assets owned by a cooperative that is not caused by an increase in the amount of debt or an increase in the amount of capital of members. The increase in the amount of cooperative debt will also cause an increase in the number of assets owned by the cooperative. The increase in assets caused by such transactions cannot be classified as cooperative income. Additional capital deposits by members (principal savings and mandatory savings) will also cause an increase in the total assets of the cooperative. The increase in assets caused by such transactions also cannot be classified as cooperative income. Therefore, what can be categorized as income is an increase in assets caused by things other than these two things. (Rudianto, 2010:201)

2.2 Cooperative

Based on the origin of the word, the term cooperative comes from English Co-operation which means joint effort. In this sense, all forms of work that are carried out together can actually be called cooperatives. But the notion of cooperative is still very general. What is meant by cooperative here is a form of company established by certain people to carry out certain activities, based on certain provisions and goals.

Cooperatives were established as an association of the weak to defend their necessities of life. Achieve the necessities of life at the lowest possible cost. That's the point. In cooperatives, common needs are prioritized, not profits. Meanwhile, according to the International Labor Organization (1966) in Baswir (2010), a cooperative is an association of people, who usually have limited economic capacity, which through a form of democratically controlled corporate organization, each contributes equally to the required capital, and are willing to take risks and receive rewards commensurate with their efforts.

In cooperative learning, there are several elements that are interrelated with one another, such as: the existence of cooperation, heterogeneous group members, collaborative skills, and interdependence. Johnson & Johnson (Lie, 1993: 32) states that there are five basic elements found in the structure of cooperative learning, which are as follows (Silalahi and Hutahuruk, 2020) Positive interdependence, group failure and success are the responsibility of each:

- Group member, therefore fellow group members must feel bound and dependent on each other positively. Individual responsibility, each group member is responsible for mastering subject
- Matter, because the success of group learning is determined by how much individual learning outcomes contribute.

2.3 Definition of Credit

Credit is a term that is not foreign to the people of Indonesia. The word credit is not only known by urban people, but also by people in rural areas. (Julius, 2017:286)

Basically anyone can give an explanation of what is meant by credit. However, to provide a limitation or definition of the term credit with a precise and correct formulation is not an easy thing. This is because everyone who gives credit limits tries to see it from the point of view of his own expertise. For this reason, this book will put forward some limitations or definitions of credit according to several experts: (Julius, 2017: 288)

2.4 Definition of Credit Union

Credit Union as a cooperative is a business entity owned by a group of people who trust each other in a unifying bond, who agree to save their money so as to create shared capital to be loaned among themselves, with reasonable interest and for productive and welfare purposes (Jolong, 2012: 15).

Credit UnionAs a business entity, it means that the business is carried out taking into account the economic principles that must be supported by a group of owners to achieve the goal. Credit unions are owned by a group of people who trust each other, meaning that the owner of the CU is a collection of people consisting of men and women who voluntarily become members, who are also owners, implementers, supervisors, and service users.

III. Research Methods

The place of research was conducted at the CU Maju Bersama Cooperative in Siantar District, which is located on Jl. Asahan Km 4 Siantar District. The implementation of this research was carried out within three months, starting from February 2021 to May 2021. This research method uses a quantitative research approach associative research. The purpose of associative research in this study is to determine the relationship between the effect of the number of deposits and credit arrears on the income of the CU Maju Bersama Cooperative in the Siantar sub-district (before and during covid-19).

Multiple regression analysis is the number of independent variables used to predict the dependent variable of more than one variable (Suliyanto 2011:53). Statistical analysis used in this study is multiple regression analysis using SPSS 23.0 program. Multiple regression analysis was used to calculate the magnitude of the influence quantitatively from a change in events (variable X) to other events (variable Y). Multiple regression analysis in this study is used to determine the effect of Total Deposits and Credit Arrears on Cooperative Income. The multiple regression equation formulation itself is as follows:

$$Y=\alpha+\beta_1X_1+\beta_2X_2+ \beta_3D+ \beta_4D*X_1+ \beta_5D*X_2 +et$$

Information:

Y	: Cooperative Income (In Rupiah)
α	: Constant
β_1, β_2	: Regression coefficient
X_1	: Total Savings (In Rupiah)

X_2 : Credit Arrears (In Rupiah)
D : 0 = Before covid-19 and 1 = During Covid-19
Et : Confounding variable

This test is used to determine whether the independent variables individually and collectively have a significant effect on the dependent variable. Statistical tests include F test, t test, and coefficient of determination test (R2).

The coefficient of determination measures how far the model's ability to explain variations in the dependent variable is. The value of the coefficient of determination is between zero and one, a small value of R2 means that the independent variables in explaining the variation of the dependent variable are very limited and a value close to one means that the independent variables provide almost all the information needed to predict the variation of the dependent variable.

The calculated t value is used to test whether the variable has an effect on the dependent variable or not. A variable will have an effect if the t value of the variable is greater than the t table value.

a. H0: = 0, meaning that the independent variable X1 has no partial significant effect on the dependent variable. (Before and During Covid-19)
   H1: 0, means the independent variable X1 partially significant effect on the dependent variable. (Before and during Covid-19)
b. H01: = 0, meaning that the independent variable X2 has no partial significant effect on the dependent variable. (Before and During Covid-19)
   H2 : 0, means the independent variable X2 partially significant effect on the dependent variable. (Before and During Covid-19)

To determine whether the above hypothesis is accepted or rejected, it is done by comparing t count with t table.

H0 will be rejected if tcount > ttable or significance value < 5%
H0 will be accepted if tcount ≤ tableor significance value > 5%

The F statistical test shows whether all the independent variables in the model have a joint influence on the dependents. To perform the F test with Quick Look, namely: look at the probability value and degree of confidence determined in the research or look at the t table with calculated F. If the probability value < the specified degree of confidence and if the calculated F value is higher than t table, then an independent variable jointly affects the dependent variable.

This hypothesis is formulated as follows:

H0: = = 0, meaning that there is no significant effect of the Amount of Deposits and Credit Arrears on Income. (Before and During Covid-19)
H : ≠ ≠ 0, there is at least one effect on changes in the proportion of Total Deposits and Credit Arrears to Income. (Before and During Covid-19)
If F count < F table, then H0 is accepted.
If F count > F table, then H0 is rejected.
If the significance level is less than 0.05 or 5% the model is feasible to use.

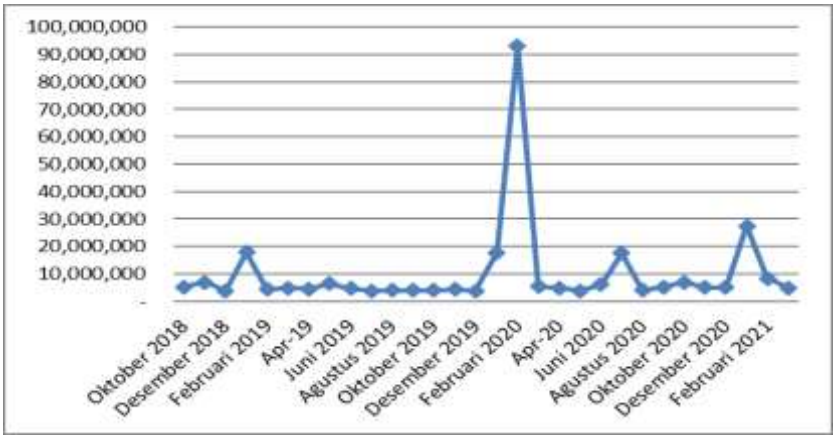
The Cooperative Income Projection for April 2021-December 2021 can be formulated as follows:

$$EP_{b+1} = P_b + \Delta P$$

Information:
EP_{b+1} : Estimate Cooperative income next month (b+1)
P_b : Current Month's Cooperative Income (b)
ΔP : Average Change in Cooperative Income

IV. Result and Discussion

Deposits that must be paid by members at certain times and occasions, such as once a month. There are 3 types of savings, namely principal savings, mandatory savings, and voluntary savings. The development of deposits paid by members to the CU Maju Bersama Cooperative from October 2018 to March 2021, namely:



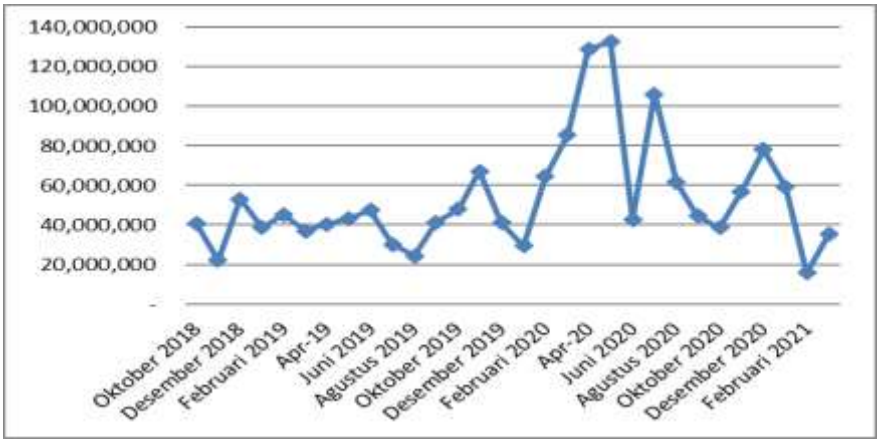
Source: CU Maju Bersama Cooperative Monthly Report (processed data), 2021

***Figure 1.** Deposit Progress from October 2018 – March 2021*

From the picture above, it shows the development of deposits given by members for the period October 2018 to March 2021.

In October 2018-May 2021 it always fluctuates. The highest deposit received by CU Maju Bersama occurred in February 2020 of Rp. 93,052,480. this is due to in February 2020, there was a mutation in deposits from other units. while the lowest savings experienced by CU Maju Bersama occurred in July 2019 of Rp. 3,738,025. this is because in July 2019, members did not deposit deposits. Then the average deposit is IDR 9,890,983 every month.

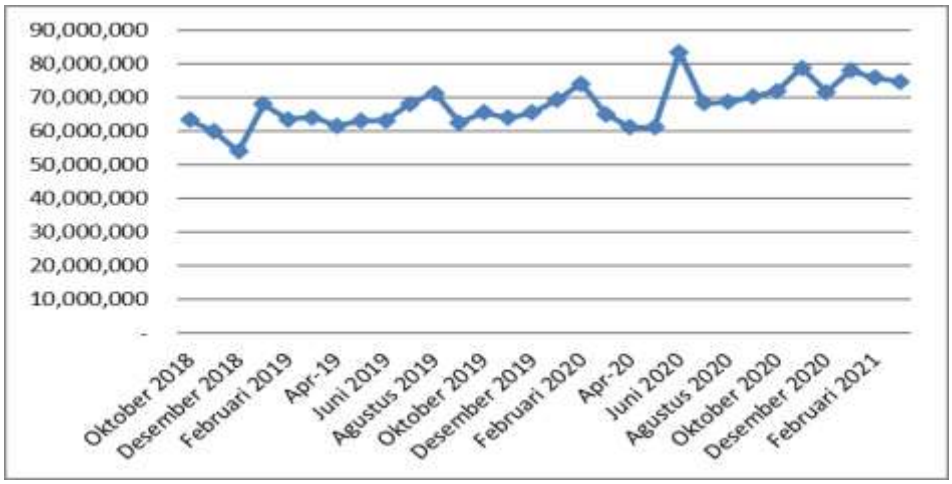
Loan arrears or what is also known as bad credit or non-performing financing is a financing condition where there is a deviation (deviation) from the agreed terms of lending in the repayment of the financing so that there is a delay, judicial action is required, or it is suspected that there is a potential loss. In the financing portfolio, non-performing financing is still the main management, because the risk and loss factors for these risk assets will affect health.



Source: CU Maju Bersama Cooperative Monthly Report (processed data), 2021

***Figure 2**. Credit Arrears Development from October 2018-March 2021*

From the picture above, it shows the development of member credit arrears for the period October 2018-March 2021. In October 2018-May 2021, it always fluctuates. The highest credit arrears experienced by Cu Maju Bersama occurred in May 2020 of Rp. 132,552,525. This is because in May 2020, CU Maju Bersama members experienced financial difficulties because the government imposed a PSBB (Large-Scale Social Restriction) or Lockdown, while members still had to pay for living needs such as: food costs, education costs and others, while arrears the lowest credit experienced by Cu Maju Bersama occurred in February 2021 at Rp. 15,816,825. This is because in February 2021, the Government has relaxed PSBB (Large-Scale Social Restrictions) and provided assistance to MSMEs, BLT.



Source: Cu Maju Bersama Cooperative Monthly Report (processed data), 2021

Figure 3. *Revenue Development from October 2018-March 2021*

From the picture above shows the development of Cooperative Income for the period October 2018 to March 2021. In October 2018-March 2021 it always fluctuates and in March 2021. The highest income received by CU Maju Bersama was in June 2020 of Rp. 83,580,900. This is because in June 2020 the service income received by CU Maju Bersama was high and expenses were low. While on the other hand the lowest income received by CU Maju Bersama was in December 2018 of Rp. 53,887,100, then the average income of CU Maju Bersama is Rp 67,694,604 per month.

Table 2. The average amount of loans, deposits, credit arrears and cooperative income before Covid-19 (October 2018-December 2019).

Month	Loan Amount	Total Deposit	Credit Arrears	Cooperative Income
October	87,000,000	5,161,375	40,752,050	63,428,200
November	263,000,000	6,852,825	22,040.050	59,969,450
December	202,000,000	3,824,100	52,942,375	53,887,100
January	95,500,000	17,927,018	38,537,875	67,999,050
February	180,000,000	4,215,850	45,240,990	63,516,350

March	72,500,000	4,735,575	37,000,560	64,175,425
April	131,000,000	4,404.950	40,397,700	61,654,050
May	95,000,000	6,433.525	43,212,375	63.033.475
June	254,000,000	4,637,200	47,390,950	63,269,800
July	155.000.000	3,738,025	30.114.125	68,230,975
August	60,000,000	3,933,800	24,272,600	71.371.200
September	165,000,000	4,011,150	41,249,900	62,493,850
October	163,000,000	3,874,425	47,842,575	65,492,575
November	117,000,000	4,381,275	67,088.025	63,986,725
December	124,000,000	3,846,650	41,143,400	65,495,350
	144,266,667	5,465,183	41,281,703	63,866,905

Data source: CU Maju Bersama cooperative monthly report, 2021

The table above shows that loans, deposits and credit arrears (before covid-19) fluctuate every month. The average loan value for these 15 months is 144,266,267, the average deposit is 5,465,183. The average credit arrears are 41,281,703 and the average cooperative income is 63,866,905.

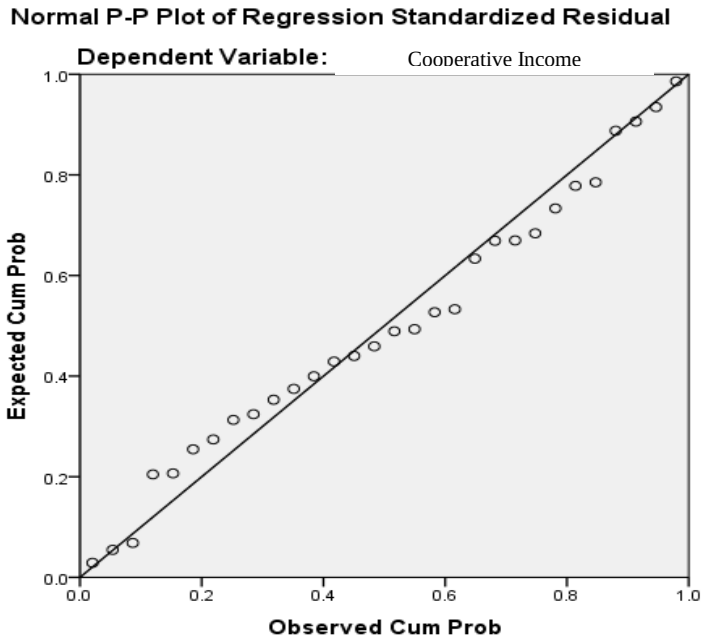
Table 3. The average amount of loans, deposits, credit arrears and cooperative income during Covid-19 (January 2020-March 2021).

Month	Loan Amount	Total Deposit	Credit Arrears	Cooperative Income
January	27,500,000	17,651,057	29,409,400	69,229,850
February	168,000,000	93,052,480	64,500,450	74.186.400
March	150,000,000	5,369,950	85,298,500	65,026.050
April	-	4.797.350	128,871.125	61,090,650
May	60,000,000	3.818.125	132.552,525	61.177.875
June	62,000,000	6117,836	42,903,675	83,580,900
July	67,000,000	17,464,071	106,174.275	68,374,150
August	75,000,000	3,999,500	61.503,325	68,704,500
September	290.000.000	5.128.175	44,496,600	70,216,825

October	110,000,000	6,835,525	38,598,925	71,981,475
November	436,000,000	5.070.350	56,834,075	78,795,650
December	136,000,000	4,978,150	77.997.350	71,613,850
January	113,500,000	27,345,458	58,998,550	78,141,100
February	185.500.000	8,249,425	15,816,825	75,899.575
March	251,000,000	4,874,300	35,305,650	74,815,700
	142.100.000	14,316,783	65,284,083	71,522,303

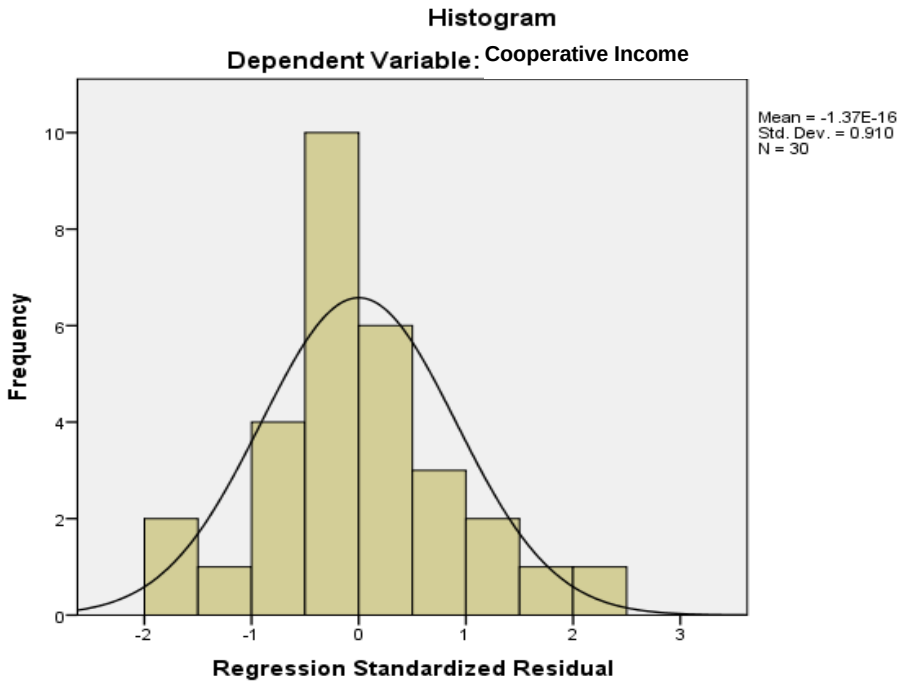
Source: CU Maju Bersama cooperative monthly report, 2021

The table above shows that loans, deposits and credit arrears (during covid-19) fluctuate every month. The average loan value is 142,100,000, the average deposit is 14,316,783, credit arrears is 6,317,815 and other income is 71,522,303. When the Covid-19 loan decreased, the cooperative did not provide loans to members, because the government imposed a large-scale social restriction (PSBB) or lockdown. At the time of covid, high savings were caused by mutations in deposits from other units. At the time of covid, credit arrears decreased because in February 2021 the government eased PSBB (Large-Scale Social Restrictions) and provided assistance to MSMEs, BLT, BST, Pre-Employment and Employee Salary Subsidies through BPJS Ketenagakerjaan.



Source: output 23 spss data processed, 2021
Figure 4. *Normality test*

From the graphic image, it can be seen that the distribution of the points is around the diagonal line and follows the direction of the diagonal line. This illustrates that the data is normally distributed.



Source: output 23 spss data processed, 2021

Figure 5. *Histogram*

Based on the graph in the image above, we can see that the histogram graph forms a bell. This shows that when viewed from the histogram graph, the data used in this study are normal data or those with normal distribution.

Table 4. Normality test

Descriptive Statistics

	N	Skewness		Kurtosis	
	Statistics	Statistics	Std. Error	Statistics	Std. Error
Standardized Residual	30	.168	.427	.407	.833
Valid N (listwise)	30				

Source : output 23 spss data processed, 2021

Based on the output above, it is known that the variables of Total Savings (X1), Loan Arrears (X2), and Income (Y) data are normally distributed, this is because the statistical value on these variables is still in the value range of -2 to +2. So it can be concluded that the assumption of normality has been met.

The autocorrelation test aims to test whether in the linear regression model there is a correlation between the confounding error in a period (t) and the previous period (t-1). If there is a correlation then there is an autocorrelation problem. The way to test the autocorrelation assumption is by using the Durbin-Watson (DW) test, if the numbers Dl < DW > Du and Dl < (4–DU) > Du, there is no autocorrelation.

Table 5. Autocorrelation test

Model Summaryb

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.792a	.628	.550	4354802.442	1,584

a. Predictors: (Constant), Dummy * Credit Arrears, Total Deposits, Dummy, Credit Arrears, Dummy * Total Deposits

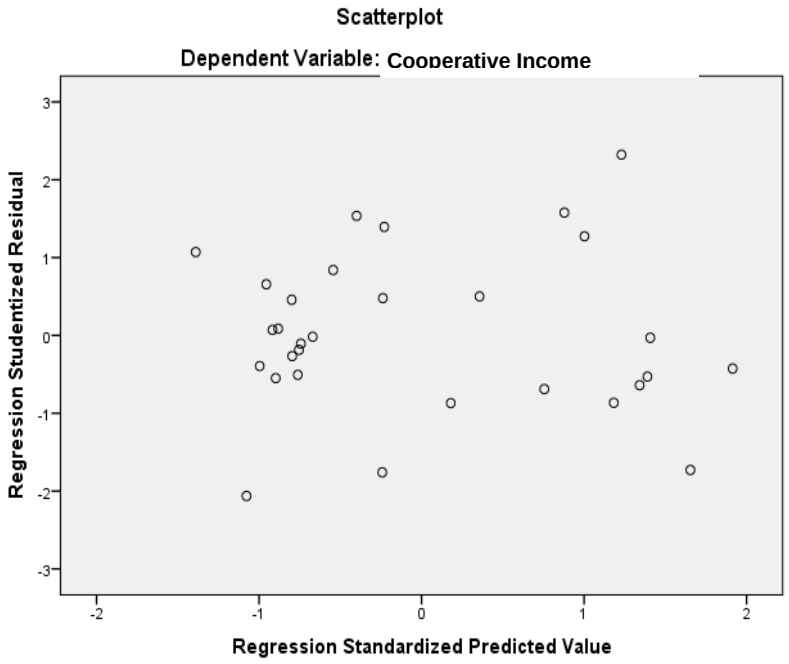
b. Dependent Variable: Cooperative Income

Source: output 23 spss data processed, 2021

From the table above, it is known that the following results were found:
The DW value is 1.584.
dL value with n=30, (k=2, =5%) = 1,284
dU value with n=30, (k=2, =5%) = 1.567
4 – dU = 4 – (1,567) =/1433
The DW value is in the zone:
dL < DW > dU and dL < (4– dU) > dU
1.284 < 1.584 > 1.567 and 1.284 </1433 > 1.567

It can be concluded with the Durbin Watson method that there is no autocorrelation of the regression model.

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residual of one observation to another observation. The method used in this study to see whether there is heteroscedasticity is to look at the Scatterplot graph. The basis of the scatterplot graph analysis is that if the points spread randomly above and below the number 0 on the Y axis, it can be concluded that there is no heteroscedasticity in the regression model.



Source: output 23 spss data processed, 2021

Figure 6. *Heteroscedasticity test*

Based on the heteroscedasticity test using scatterplots, it is known that in this test no heteroscedasticity symptoms were found. This is evidenced from the picture above the points spread randomly above and below the number 0 on the Y axis, so it can be concluded that there is no heteroscedasticity in the regression model.

Multicollinearity aims to test whether the regression model found a correlation between the independent variables (independent). The way to detect the presence or absence of multicollinearity in the regression model is seen from the tolerance value (TOL) and the opposite variance inflation factor (VIF). The standard rule that is commonly used to indicate the presence of multicollinearity is the tolerance value (TOL) less than 0.10 or equal to the VIF value of a variable more than 10.

Table 6. Multicollinearity Test

Coefficientsa

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
Total Deposit	.022	45,953
Credit Arrears	.072	13,834
Dummy	.078	12.878
Dummy * Total Deposit	.019	51,568
Dummy * Credit Arrears	.031	32.132

a. Dependent Variable: Cooperative Income

Source: output 23 spss data processed, 2021

Based on the output table "coefficients" in the "Collinearity Statistics" section, it is known that the Tolerance value of the independent variable (independent) shows less than 0.10 which means there is a correlation between the independent variables (independent). Meanwhile, the VIF value of the independent variable has a VIF value of more than 10. So it can be concluded that there is multicollinearity between independent variables in the regression model.

Regression is a measuring tool used to determine whether there is a correlation between variables. Multiple linear regression analysis model which is intended to determine the effect of the amount of credit arrears and dummy deposits on the income of the CU Maju Bersama Cooperative in Siantar District. Based on the results of data processing with the help of statistical programs to produce the following equation:

Table 7. Multiple Linear Analysis

Coefficientsa

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	67841244.528	5091593.572		13,324	.000
Total Deposit	.186	.329	.477	.565	.578
Credit Arrears	-121	.106	-.527	-1.138	.267
Dummy	11366945.909	5706311.836	.890	1992	.058
Dummy * Total Deposit	-.145	.333	-.389	-.435	.667
Dummy * Credit Arrears	-.006	.111	-.037	-.052	.959

a. Dependent Variable: Cooperative Income

Source: output 23 spss data processed, 2021

Where:

Y = Income (IDR)

X1 = Total Savings (IDR)

X2 = Credit Arrears (IDR)

Dummy = D = 0 = Before Covid-19

= D = 1 = During Covid-19

ET = Confounding variable

Based on the regression data shown in table 4.4, it is concluded that all independent variables are significant in influencing the dependent variable.

- To display in equation form:

  Y= 67841244.528+0, 186 X1 - 0, 121 X2 +11366945.909D – 0,145 D*X1 – 0.006D*X2 +et

  From the estimation results of the above equation, the Income function for the period Before Covid-19 with the period during Covid-19 is as follows:

  Period Before Covid-19:

  Y = 67841244.528 + 0, 186 X1 - 0, 121 X2

  Period During Covid-19:

  Y = 67841244.528 + 11366945.909 + (0, 186 - 0,145) X1 - (0, 121 - 0.006) X2

  Y = 79208190.437 + 0.041 X1 – 0.115 X2

Based on the estimated equation in the period before Covid-19 with the time of Covid-19, where the dummy and dummy*X1 and dummy*X2 variables are insignificant, it can be interpreted that the covid-19 period variable does not affect people's preferences for saving and credit arrears. If it is associated with the regression coefficient, the period during Covid-19 can be concluded as follows:

- Intercept or constant increasing: meaning that the amount of cooperative income when deposits and credit arrears received is zero, increasing during the period during Covid-19.
- Savings Coefficient (X1): increase in income for each additional deposit received.
- Loan Arrears Coefficient (X2): decrease or decrease in income for each credit arrears.

The coefficient of determination measures how far the model's ability to explain variations in the dependent variable is. The value of the coefficient of determination is between zero and one, a small value of R2 means that the independent variables in explaining the variation of the dependent variable are very limited and a value close to one means that the independent variables provide almost all the information needed to predict the variation of the dependent variable.

Table 8. Coefficient of Determination (R2)

Model Summaryb

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.792a	.628	.550	4354802.442

a. Predictors: (Constant), Dummy * Credit Arrears, Total Deposits, Dummy, Credit Arrears, Dummy * Total Deposits

b. Dependent Variable: Cooperative Income

Source: output 23 spss data processed, 2021

From the table above shows the correlation coefficient I and the coefficient of determination (R square), R square explains how much the variable caused by X from the calculation results obtained R2 value of 0, 628or 62.8%. This means that 62.8% of income is influenced by the two large variables, Total Savings and Loan Arrears. while the rest is

influenced by other factors outside the model. Adjusted R square is the adjusted R2 value so that the picture is closer to the quality of the model assessment, from the calculation results of the adjusted R square value of 0, 550or 55.0%. So it can be concluded that there is an effect of the variable Amount of Deposits and Credit Arrears on Cooperative Income.

The t-test is known as the partial test, which is to test how the influence of each independent variable individually on the dependent variable.

Seen from table 4.6 The results of hypothesis testing of each independent variable partially on the dependent variable can be analyzed as follows:

1. Hypothesis Test Results Effect of Total Savings (X1) to Income (Y) Before Covid-19.
   The research variable is Total Savings (X1) as the independent variable. That the coefficient of the t-test results of Total Savings (X1) shows a significance level of 0.578 (>5%). For the resulting t-value is 0,565 while the t-table value is 1.697. Because the value of t table is greater than t arithmetic, then H1 is rejected and H0 is accepted. So it can be concluded that the amount of savings does not have a significant effect on Cooperative Income.
2. Hypothesis Test Results Effect of Total Savings (X1) to Income (Y) During Covid-19.
   The research variable is Total Savings (X1) as the independent variable. That the coefficient of the t-test results of Total Savings (X1) shows a significance level of 0.667 (>5%). For the resulting t-value is -0.435 while the t-table value is 1.697. Because the value of t table is greater than t arithmetic, then H1 is rejected and H0 is accepted. So it can be concluded that the amount of savings does not have a significant effect on Cooperative Income.
3. Result of Hypothesis Testing Effect of Credit Arrears (X2) to Income (Y) before covid-19.
   The research variable is Credit Arrears (X2) as the independent variable. That the coefficient of the t-test results of Credit Arrears shows a significance level of 0, 267(>5%). For the resulting t value is equal to-1,138 while the t-table value is 1.697. Because the value of t table is greater than t arithmetic, then H1 is rejected and H0 is accepted. So it can be concluded that loan arrears have no significant effect on Cooperative Income.
4. Result of Hypothesis Testing Effect of Credit Arrears (X2) to Income (Y) during covid-19.
   The research variable is Credit Arrears (X2) as the independent variable. That the coefficient of the t-test results of Credit Arrears shows a significance level of 0, 959(>5%). For the resulting t value is equal to-0.052 while the t-table value is 1.697. Because the value of t table is greater than t arithmetic, then H1 is rejected and H0 is accepted. So it can be concluded that loan arrears have no significant effect on Cooperative Income.

Table 9. t Test Regression Results

Coefficientsa

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	67841244.528	5091593.572		13,324	.000
Total Deposit	.186	.329	.477	.565	.578
Credit Arrears	-121	.106	-.527	-1.138	.267
Dummy	11366945.909	5706311.836	.890	1992	.058
Dummy * Total Deposit	-.145	.333	-.389	-.435	.667
Dummy * Credit Arrears	-.006	.111	-.037	-.052	.959

a. Dependent Variable: Cooperative Income

Source : output 23 spss data processing, 2021

The F statistic test or Analysis of Variance (ANOVA) was used to test each independent variable that significantly affected the dependent variable together with = 0.05 and accepted or rejected the hypothesis. The results of the F test calculations can be seen in the following table:

Table 10. F test

ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7674504265756 62,000	5	1534900853151 32.400	8094	.000b
	Residual	4551433034794 42.300	24	1896430431164 3,430		
	Total	1222593730055 104,000	29			

a. Dependent Variable: Cooperative Income

b. Predictors: (Constant), Dummy * Credit Arrears, Total Deposits, Dummy, Credit Arrears, Dummy * Total Deposits

Source: output 23 spss data processing 2021

To test whether the model can be used is to compare Sig. in the ANOVA table with a significant level (alpha 0.05%). If Sig. > 0.05 then the model is rejected but if Sig. <0.05 then the model is accepted. In the F test table above the value of sig. 0.000 <0.05, it can be concluded that the model is acceptable. From the results of the regression analysis, it can also be seen that together the independent variables have a significant influence on the dependent variable.

This can be proven from the calculated F value (8094) which is greater than the value of F table (3,32). Regression models can be used to predict income or it can be said that the amount of deposits and loan arrears together affects the income of the CU Maju Bersama Cooperative in Siantar District for the period October 2018 - March 2021. The (simultaneous) effect on the income of the CU Maju Bersama Cooperative for the period October 2018 – March 2021 is acceptable.

The Cooperative Income Projection for April 2021-December 2021 can be calculated using the transformation moving average method. The transformation moving average technique is done by calculating the change in the income of the cooperative in month b minus the income of the cooperative in month b-1 (ΔP). Next month's cooperative income projection is calculated from the current month's cooperative income plus the average additional cooperative income can be formulated in the following way:

$$EP_{b+1} = P_b + \Delta P$$

Information:

EP_{b+1} : Estimated Cooperative Income Next Month (b+1)

P_b : Current Month's Cooperative Income (b)

ΔP : Average Change Cooperative Income

Cooperative Income Projection

Table 11. Changes in Cooperative income

Month	Cooperative Income	P	**% P**
October	63,428,200		
November	59,969,450	- 3,458,750	
December	53,887,100	- 6,082,350	2
January	67,999,050	14,111,950	- 2
February	63,516,350	- 4,482,700	- 0
March	64,175,425	659,075	- 0
April	61,654,050	- 2,521,375	- 4
May	63.033.475	1,379,425	- 1
June	63,269,800	236,325	0
July	68,230,975	4,961.175	21
August	71.371.200	3,140,225	1
September	62,493,850	- 8.877.350	- 3
October	65,492,575	2,998,725	- 0
November	63,986,725	- 65,492,575	- 22
December	65,495,350	1,508,625	- 0
January	69,229,850	3,734,500	2
February	74.186.400	4,956,550	1
March	65,026.050	- 9,160,350	- 2
April	61,090,650	- 3,935,400	0
May	61.177.875	87.225	- 0
June	83,580,900	22,403,025	257
July	68,374,150	- 15,206,750	- 1
August	68,704,500	330.350	- 0
September	70,216,825	1,512,325	5
October	71,981,475	1,764,650	1
November	78,795,650	6,814.175	4
December	71,613,850	- 7,181,800	- 1
January	78,141,100	6,527,250	- 1
February	75,899.575	- 2,241,525	- 0
March	74,815,700	- 1,083,875	0

Source: Data analysis, 2021

Based on the calculation of monthly changes in cooperative income from October 2018-March 2021, the total ΔP = 11,387,500 and average ΔP = 11,387,500 /29 = 392,672 . So that the projected income of the cooperative for April 2021-December 2021 is:

Projected Cooperative Income April 2021= Cooperative Income March 2021 + Average ΔP

= 74,815,700+ 392,672

= 75,208,372

Furthermore, the results of the cooperative

Table 12. Cooperative Income Projection Results for April 2021-December 2021

Month	Yb-1	Average P	Cooperative Income Projection	Projected % Increase
April	74,815,700	392,672	75,208,372	1.01
May	75,208,372	392,672	75,601,044	1.01
June	75,601,044	392,672	75,993,716	1.01
July	75,993,716	392,672	76,386,388	1.01
July	76,386,388	392,672	76,779,060	1.01
August	76,779,060	392,672	77.171.732	1.01
September	77.171.732	392,672	77,564,404	1.01
October	77,564,404	392,672	77.957.076	1.01
November	77.957.076	392,672	78,349,748	1.01
December	78,349,748	392,672	78,742,420	1.01

Source: Data analysis, 2021

Based on the results of the calculation of cooperative income projections for April 2021-December 2021, it can be concluded that the projection of Cooperative Income has increased even though the average increase is only 1.01%.

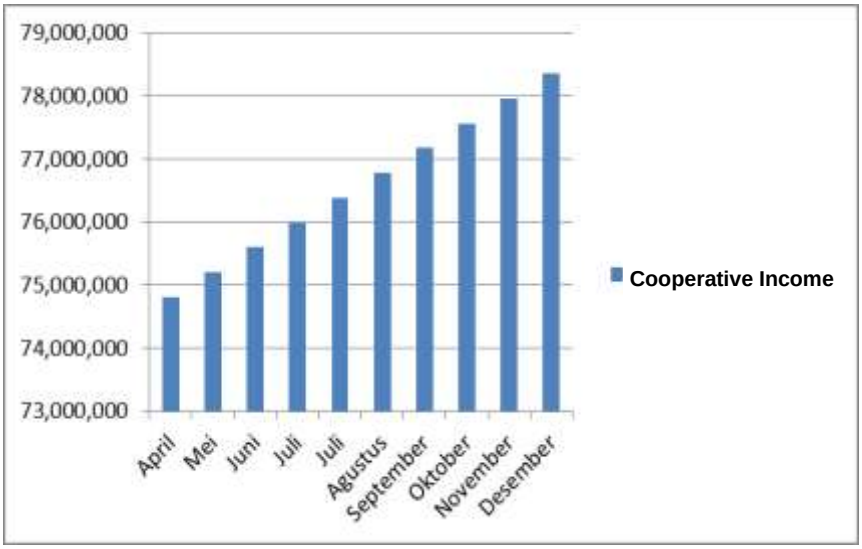


Figure 7. *Cooperative Income Projection for April 2021-December 2021*

V. Conclusion

The variable amount of savings has no significant effect on the income of the CU Maju Bersama Cooperative in Siantar District (Before and During Covid-19). Loan arrears variable has no significant effect on the income of CU Maju Bersama Cooperative in Siantar District. (Before and During Covid-19). The test results simultaneously state that the amount of deposits and credit arrears together has a significant effect on the income of the CU Maju Bersama cooperative in Siantar District (Before and During Covid-19). The results of the R2 test state that there is an effect of the amount of deposits and credit arrears on the income of the CU Maju Bersama cooperative in Siantar District.

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