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# The Influence of Operating Cash Flow, Net Income, Depreciation Expenses, and Amortization Expenses on Cash Flow Forecasting at PT. Bank XYZ

Aisyah Nurul Aini<sup>1\*</sup>, Herlina Napitupulu<sup>2</sup>, Sukono<sup>3</sup>

<sup>1</sup> Mathematics Undergraduate Study Program, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Jatinangor, Indonesia

<sup>2,3</sup>Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Jatinangor, Indonesia

\*Corresponding author email: aisyahnrla@gmail.com

## Abstract

The cash flow statement is part of a company's financial statements produced in an accounting period that shows the company's cash inflows and outflows. This study aims to analyze the effect of operating cash flow variables, net income, depreciation expense, and amortization expense on forecasting future cash flows. This research uses quantitative research using secondary data with a descriptive approach, which is analyzed using the Multiple Linear Regression method with SPSS assistance. The object used is PT. Bank XYZ for the period January 2019 to February 2023. The results show that operating cash flow affects forecasting future cash flows, net profit does not affect forecasting future cash flows, depreciation expense does not affect forecasting future cash flows. However, operating cash flow, net profit, depreciation expense, and amortization expense simultaneously affect the cash flow forecasting results. Based on the forecasting results, which have a MAPE value of 17.43%, it can be concluded that the forecasting results have good forecasting abilities.

Keywords: Forecasting, cash flow, net profit, depreciation, amortization.

# 1. Introduction

The development of the business world is currently increasing, and companies are encouraged to compete by generating higher profits. One of the supporting factors that caused this to increase rapidly was the Industrial Revolution 4.0, which resulted in digital transformation (Tomičić Furjan et al., 2020). Therefore, many companies experience a waste of cash flow, especially service companies in Indonesia, causing many companies to experience negative impacts, one of which is that the company will not last long or go bankrupt (Takhtaei & Karimi, 2013).

Economic actors need to know the financial performance of a company to find out and evaluate the level of success based on financial activities that have been carried out by the company, such as evaluating financial reports (Kusuma & Sumadi, 2021). Financial performance, which is analyzed especially by using the company's financial statements, can help with decision-making or the formulation of policies in the future in order to create increased results from financial performance. Financial reports are data media that summarize all company activities (Lohonauman & Budiarso, 2021). According to Cascino et al. (2014) the purpose of financial reports is to provide information, understanding, forecasting, diagnosis, or evaluation to those who need it about the condition of a company from the point of view of numbers in monetary units.

A cash flow report is a form of financial report that is used as a benchmark for a company's success in the investment world, so companies need to forecast cash flows to manage their finances (Cheng et al., 2015). Conducted research on forecasting future cash flow models by testing net income, cash flow, changes in receivables, and changes in debt. Based on the test results, it is known that only net income and cash flow have a significant effect on the forecasting results of future cash flows. This is not supported by the research of Lohonauman & Budiarso (2021), which states that net income has no significant effect on the results of forecasting future cash flows. In addition, McBeth (1993) conducted research, namely an analysis of forecasting future operating cash flows by testing past operating cash flows, net income, and accrual components. The accrual components referred to include changes in accounts receivable, changes in business inventories, changes in payables, accounts receivable ratios, depreciation, and amortization expenses. The results of his research show that past operating cash flows, net income, depreciation,

and amortization expenses have a significant effect on forecasting results. However, research by Cheng & Hollie, (2008) states that depreciation expenses do not have a significant effect on the results of forecasting future cash flows. The same is true of the results of research by Barth et al. (2001), which state that amortization expenses do not have a significant effect on the results of forecasting future cash flows. Analyzing cash flow statements can be applied to forecasting future cash flows using the Multiple Linear Regression method. The hope is that it can help investors, creditors, and other parties when making decisions before making transactions, whether credit, investment, or others at PT. Bank XYZ, as well as adding references related to research regarding the ability of cash flow statement information.

# 2. Literature Review

# 2.1. Cash Flow Report

According to International Accounting Standard 7 (IAS 7), cash flows are the inflows and outflows of cash and cash equivalents. Cash flow consists of three activities: operating activities, income activities, and investing activities. Operating activities are the entity's primary revenue-generating activities and other activities that are not investing or financing activities. Investing activities are the acquisition and disposal of long-term assets and other investments that are not included in cash equivalents. Financing activities are activities that result in changes in the size and composition of the entity's equity and loan contributions. Cash flow statements can provide information about a company's ability to evaluate ongoing operational activities and plan investment and financing activities in the future, but they can also be used by investors and creditors to assess the company's level of liquidity and opportunities to generate profits.

Cash flow statements can provide information about a company's ability to evaluate ongoing operational activities and plan investment and financing activities in the future, but it can also be used by investors and creditors in assessing the company's level of liquidity and opportunities to generate profits. Referring to the explanation by the Indonesian Institute of Accountants (2009) which explains that information regarding cash flow statements can be useful for users of financial statements as a basis for assessing an entity's ability to generate cash and cash equivalents.

#### 2.2. Forecasting

Forecasting is an estimate using statistical techniques in the form of a picture of the future based on the historical processing of numbers. The use of forecasting is intended specifically for the performance analysis process, which is carried out and then estimates the possibilities that can occur in the future to find out whether conditions are in accordance with or not as expected (Cheng et al., 2015).

There are two types of forecasting techniques: qualitative methods and quantitative methods. Qualitative forecasting techniques are often subjective and require expert judgment where there is little or no historical data on which to base the forecast. Meanwhile, quantitative forecasting techniques use historical data to summarize patterns in the data and reveal statistical relationships between previous and current variable values, which are then used to project patterns in the data into the future. In this study, quantitative forecasting techniques are used because they extrapolate data from the past and present to the future. A good amount of past data used for forecasting requires a minimum amount of data because the amount of data greatly affects the results of forecasting. According to Zhang et al. (2001), in conducting time series analysis, historical data is required for at least 50 time series.

## 2.3. Operating Cash Flow

Operating cash flow is cash flow that comes from the company's operating activities and is a fund to support the company's operating activities in order to achieve the highest possible profit. Meanwhile, according to PSAK No. 2 (Revised 2016), operating cash flow is an indicator in determining the operations of entities that generate cash to pay off loans obtained, to pay dividends, and make new investments without using outside funding. If a company is able to generate positive operating cash flow, then the opportunities expected by investors and creditors for return on investment and loans that have been given will be even greater.

Forecasting operating cash flow can reveal the company's financial danger signs, company performance, and information related to the company's survival. According to Atieh et al. (2022), research on the involvement of components that affect cash flows and cash flows originating from operating activities can predict future cash flows. Kisman & Krisandi (2019) examine the factors that influence forecasting future cash flows. The result is that operating cash flow has a significant influence on the results of forecasting future cash flows.

## 2.4. Time Series

According to Kumar et al. (2005), a time series is a series of observations of a variable that are taken and recorded from time to time sequentially according to the sequence of events with fixed time intervals. One of the things that must be considered for the perfection of the time series model is that the data must be stationary, which aims to test the consistency of the movement of the time series data (Cheng et al., 2015).

#### 2.5. Ordinary Least Squares (OLS)

The Ordinary Least Squares (OLS) method is used as a method for estimating unknown parameters in linear regression by minimizing the residual sum of squares or the sum of the squares of the residuals. After minimizing the sum of the squares of the residuals, the coefficient values of the multiple linear regression parameters will be obtained.

## 2.6. Linear Regression Analysis

Linear regression analysis is an analytical technique used to determine the relationship between the dependent variable and one or more independent variables linearly. The end result of linear regression analysis is to produce a regression model that can be used to predict the value of the dependent variable in the future with a certain value of the independent variable. Linear regression analysis consists of two types: simple linear regression analysis and multiple linear regression analysis. Simple linear regression analysis is a regression model that involves one independent variable and one dependent variable. Multiple linear regression analysis is a continuation of simple linear regression where the regression model involves more than one independent variable and one dependent variable.

#### 2.7. Net Proft

According to Raditya et al. (2021), net profit is all total revenue that has been deducted from the total costs that are a burden on the company in a certain period, including tax expenses. Net profit is included in the accounting profit of the company's financial statements and aims to provide an overview of changes in the company's current wealth and estimated profitability, namely to what extent the business can cover operating costs and obtain returns for investors. Net income does not only show information about present cash flows but can also be used as a basis for evaluating past profits and for future consideration for the company.

Net income can have a significant effect on the results of forecasting future cash flows because when total revenue in the form of sales increases, it will affect the company's total cash flow. This is supported by research conducted by Takhtaei & Karimi (2013), which found evidence that net income has a significant informational ability to predict future cash flows.

#### 2.8. Depreciation Expense

Depreciation expense, according to PSAK No. 16, is an allocation of the acquisition cost of a depreciable asset up to its estimated useful life. Depreciation is one of the methods of allocating the acquisition of fixed assets to expenses during the periods the assets are used, and the acquisition of these assets will affect cash inflows, namely income. Fixed assets that can be seen physically (tangible assets) and are generally permanent and have a long useful life. Tangible fixed assets can be in the form of land, buildings, office equipment, vehicles, and so on.

Depreciation can be used to describe the appropriate level of asset use and the correct amount of profit reported. This is supported by the research of Barth et al. (2001), who stated that depreciation expenses have a significant influence on forecasting future cash flows.

## 2.9. Amortization Expense

Amortization is one of the depreciation methods. According to PSAK No. 19 (2009), amortization is the systematic allocation of the depreciable amount of an intangible asset over its useful life. Intangible assets are the fixed assets of a company whose physical existence cannot be seen. The types of intangible assets are intangible fixed assets, intangible current assets, and other intangible assets. Examples of intangible assets are patents, trademarks, and franchises.

The addition of company assets will affect cash inflows, so amortization expenses will also increase, which will affect the amount of company cash flows. Thus, amortization expenses will affect future cash flows. This is supported by research conducted by Kisman & Krisandi (2019) which can prove that past amortization expenses have a significant effect on future cash flows.

## **3.** Materials and Methods

# **3.1.** Materials

The object used in this study is the monthly cash flow report of PT. Bank XYZ for the period January 2019 to February 2023, which totals data points. The data used in this research is in the form of secondary data, namely data sourced indirectly from other parties. The tools used for data processing are Statistical Product and Service Solution (SPSS) and Microsoft Excel.

## 3.2. Methods

The research method used to determine the effect of operating cash flow, net income, depreciation expense, and amortization on cash flow forecasting PT. Bank XYZ for the period January 2019 to February 2023 is a Multiple Linear Regression method. The stages carried out in this research are as follows:

- a) Formulate the research hypothesis as follows:
  - $H_1$ : Operating cash flow has a significant influence on forecasting future cash flows.
  - $H_2$ : Net income has a significant effect on forecasting future cash flows.
  - $H_3$ : Depreciation expense has a significant effect on forecasting future cash flows.
  - $H_4$ : Amortization expense has a significant effect on forecasting future cash flows.
- b) Collecting and entering cash flow data (*Y*) as a dependent variable, then operating cash flow ( $X_1$ ), net profit ( $X_2$ ), depreciation expense ( $X_3$ ), and amortization expense ( $X_4$ ) PT. Bank XYZ as research data with a total sample of 50 data points for the period January 2019 to February 2023.
- c) Assuming the regression model, so that:

$$\hat{Y}_i = b_0 + b_1 X_{1i} + b_2 X_{2i} + b_3 X_{3i} + b_4 X_{4i} \tag{1}$$

d) Performing Multiple Linear Regression analysis that begins with estimating the parameters of the regression model using the Ordinary Least Square (OLS) method, so that the direction and how much influence the independent variables have on the dependent variables can be known. The formula used is:

$$b = (X^T X)^{-1} X^T Y \tag{2}$$

- e) Perform classic assumption tests on the regression model, namely the normality test, heteroscedasticity test, multicollinearity test, and autocorrelation test.
  - Normality test using the Kolmogorov-Smirnov test to find out whether the residual values are normally distributed or not and instead focus on testing each existing variable with the following formula:  $D = max|F_0(X_i) - S_n(X_i)| \qquad (3)$
  - Heteroscedasticity test using the Glejser test to test whether in the regression model there is an inequality of variance from the residuals of one observation to another, use the following formula: |a| = e + e X + e x(4)

$$|\varepsilon_i| = \beta_0 + \beta_i X_i + v_i \tag{4}$$

• Multicollinearity test using *Variance Inflation Factor* (VIF) and *tolerance* to determine the statistical phenomenon in which the independent variables in the multiple linear regression model are highly correlated with the following formula:

$$VIF = \frac{1}{1 - R^2} \operatorname{dan} Tolerance = \frac{1}{VIF}$$
(5)

• Autocorrelation test using the Durbin-Watson test to determine the correlation between residuals or confounding errors in period t with errors in the previous period or period t - 1 with the following formula:

$$d = \frac{\sum_{t=2}^{n} (e_t - e_{t-1})^2}{\sum_{t=1}^{n} e_t^2}$$
(6)

If the regression model used does not meet the classical assumptions that must be met, it is necessary to modify, transform, or recover the data or regression model.

f) Determine the value of the adjusted Coefficient of Determination  $(\overline{R}^2)$  in the research data. The formula used is:

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$$\bar{R}^2 = 1 - \frac{\sum_{i=1}^n e_i^2 / (n-k-1)}{\sum_{i=1}^n y_i^2 (n-1)}$$
(7)

g) Doing hypothesis testing simultaneously (F test) using the following equation:

$$F = \frac{R^2/(k-1)}{(1-R^2)/(n-k)}$$
(8)

and then testing individually (*t* test) using the following equation:

$$t = \frac{\widehat{\beta}_i - \beta_i^*}{SE(\widehat{\beta}_i)}; i = 1, 2, \dots, n$$
(9)

h) Measuring the level of forecasting accuracy using MAPE with the following equation:

$$MAPE = \left(\frac{1}{n}\right)\sum_{t=1}^{n} \left|\frac{Y_i - \hat{Y}_i}{n}\right| \times 100$$
(10)

i) Obtain results and draw conclusions based on the tests and calculations that have been carried out.

# 4. Results and Discussion

The data used in this study are cash flow data from operating activities, net profit, depreciation expense, and amortization expense from PT. Bank XYZ. The characteristics of the data in this study are presented in the form of descriptive statistics to provide an overview of the data used. The results of the descriptive statistics can be seen in Table 1.

**Operating Cash** Depreciation Amortization **Cash Flow Net Profit** Flow Expense Expense 15,250,491 13,274,549 Minimum 1,851,629 (181, 314)17,978 Maximum 1,908,584,803 1,303,268,443 692,406,957 2,818,270 6,794,781 276,959.98 Mean 78,314,993.02 54,419,724.42 28,814,702.13 116,546.20 **Standard Deviation** 270,630,519.80 185,015,717.06 98,260,228.92 965,056.21 398,871.17

**Table 1**: Descriptive statistical results of cash flow data (in millions)

Table 1 above shows the results of descriptive statistical calculations and it can be explained that:

- The lowest value of the total cash flow (*Y*) is IDR 20,915,445 and the highest value is IDR 134,026,025 with an average value of IDR 38,171,696.06.
- The lowest value of operating cash flow  $(X_1)$  is IDR 17,904,549 and the highest value is IDR 112,023,164 with an average value of IDR 26,065,368.86.
- The lowest value of net profit  $(X_2)$  is IDR 1,851,629 and the highest value is IDR 37,692,426 with an average value of IDR 13,848,139.14.
- The lowest value of depreciation expense  $(X_3)$  is IDR -181,314 and the highest value is IDR 261,049 with an average value of IDR 135,895.62.
- The lowest value of amortization expense  $(X_4)$  is IDR 39,556 and the highest value is IDR 140,237 with an average value of IDR 56,385.40.

A Multiple Linear Regression analysis was carried out to determine the effect of the dependent variables on the independent variables. Following are the results of cash flow regression testing on operating cash flow variables  $(X_1)$ , net income  $(X_2)$ , depreciation expenses  $(X_3)$ , and amortization expenses  $(X_4)$  by looking for parameter estimates and constants using SPSS assistance, given in Table 2.

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	Table 2: Estimation parameters				
Model		Unstandardized Coefficients			
		В	Std. Error		
1	(Constant)	16,248,268.40	4,057,330.43		
	Operating Cash Flow $(X_1)$	1.013	0.088		
	Net Profit $(X_2)$	0.30	0.160		
	Depreciation Expense $(X_3)$	1.575	16.502		
	Amortization Expense $(X_4)$	-90.663	82.603		

The multiple linear regression model equation formed refers to equation (1) as follows:

 $Y_i = 16,248,268.4 + 1.013X_1 + 0.030X_2 + 1.575X_3 - 90.663X_4 + e_i$ 

Based on the multiple linear regression equation above, it can be interpreted as follows:

- The constant value obtained is positive, namely 16,248,268.4. This shows that the variable future cash flows (*Y*) will increase by IDR 16,248,268.4 if the independent variables, namely operating cash flow information, net profit, depreciation expense, and amortization expense, are constant.
- The regression coefficient value of the operating cash flow variable  $(X_1)$  has a positive value of 1.013, which indicates that there is a unidirectional relationship between future cash flows and the operating cash flow variable. This means that if the operating cash flow increases by 1 unit, it will increase the value of future cash flows by 1.013.
- The regression coefficient value of the net income variable  $(X_2)$  is positive, which is equal to 0.030, which indicates that there is an opposite relationship between future cash flows and the net income variable. This means that if net income increases by 1 unit, it will increase the value of future cash flows by 0.030.
- The regression coefficient value of the depreciation expense variable  $(X_3)$  is negative, which is equal to 1.575, which indicates that there is a unidirectional relationship between future cash flows and the depreciation expense variable. This means that if the depreciation expense increases by 1 unit, it will increase the value of future cash flows by 1.575.
- The regression coefficient value of the amortization expense variable  $(X_4)$  is negative, which is equal to -90.663, which indicates that there is an opposite relationship between future cash flows and the amortization expense variable. This means that if the amortization expense increases by 1 unit, it will reduce the value of future cash flows by 90.663.

To ensure that the residuals are normally distributed, the researcher uses the normality test, namely the Kolmogorov-Smirnov test, and in Table 3, a significance of 0.200 is obtained, which is > 0.05 (significant level), so that it can be concluded that the residual data is normally distributed.

Table 3: Normality test results			
		Unstandardized Residual	
Ν		50	
Normal Parameters <sup>a,b</sup>	Mean	0.000000	
	Std. Deviation	7,245,650.70	
Most Extreme	Absolute	0.065	
Difference	Positive	0.047	
	Negative	-0.065	
Test Statistic		0.065	
Asymp. Sig. (2-tailed)		0.200 <sup>c,d</sup>	

Furthermore, a heteroscedasticity test was carried out, which aims to be able to see whether the regression model has an inequality of variance from the residual from one observation to another using the Glejser test and SPSS assistance. The test results are in Table 4, namely the significance value (Sig.) for the operating cash flow variable

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 $(X_1)$  is 0.109, the net profit variable  $(X_2)$  is 0.700, depreciation expense  $(X_3)$  is 0.846, and amortization expense  $(X_4)$  is 0.690. The significance value of the four variables above is greater than 0.05, so it can be interpreted that there are no symptoms of heteroscedasticity.

Table 4: Heteroscedasticity test results						
Model		Unstandardized Coefficients		t	Sig.	
		В	Std. Error	-		
1	(Constant)	424,052,23	2,324,576.70	1.824	0.075	
	Operating Cash Flow $(X_1)$	0.082	0.050	1.633	0.109	
	Net Profit $(X_2)$	0.036	0.091	0.388	0.700	
	Depreciation Expense $(X_3)$	1.850	9.455	0.196	0.846	
	Amortization Expense $(X_4)$	-18.987	47.326	-0.401	0.690	

To find out whether there is a correlation between the independent variables, a multicollinearity test was carried out, which can be seen from the tolerance and VIF values with the help of SPSS. The regression model is said to be free from multicollinearity if the tolerance value has a value above 10% and VIF is below 10. The results of the multicollinearity test can be seen in Table 5. It is known that the calculation of operating cash flow, net profit, depreciation expense, and amortization expense has a tolerance value  $\geq 0.10$  and a VIF value  $\leq 10$ . Thus, it can be interpreted from the four independent variables that the regression model does not have multicollinearity among the independent variables.

	Table 5: Multicollinearity test results				
Model		Collinearity Statistics			
		Tolerance	VIF		
1	(Constant)				
	Operating Cash Flow $(X_1)$	0.937	1.067		
	Net Profit $(X_2)$	0.668	1.496		
	Depreciation Expense $(X_3)$	0.811	1.233		
	Amortization Expense $(X_4)$	0.580	1.723		

Then, in this study, the autocorrelation test was carried out using the Durbin-Watson test statistics with the help of SPSS and aimed to determine whether there is a correlation in a regression model. The results of the autocorrelation test can be seen in Table 6. The Durbin-Watson (d) value obtained is 1.933, this value is used in accordance with the Durbin-Watson test decision-making criteria. This criterion also requires an upper limit (dU) and lower limit (dL) in the Durbin-Watson table with a significance level ( $\alpha$ ) of 0.05, the number of observed data (n) of 50, and the number of independent variables (k) of 4. It is known that the dU value is 1.7214 and the dL value is 1.3779. Meanwhile, from the results of the calculation 4 - d = 4 - 1.933 = 2.067 > dU = 1.7214 and the value of d > dU is 1.933 > 1.7214, it means that there is no positive or negative autocorrelation.

Table 6: Autocorrelation test results				
Model	R	R Square	Adjusted R Square	Durbin- Watson
1	0.867	0.752	0.730	1.933

Determination of the value of the coefficient of determination to measure how far the ability of the variable regression model to explain the variation of the independent variables. The determination of the value of the coefficient of determination is carried out using SPSS assistance. The value of the coefficient of determination is given in Table 7. It can be seen that the adjusted R square value is 0.730, which indicates that 73% of the amount of cash flow in the future can be explained by the operating cash flow variable, net income, depreciation expense, and amortization expense, while the remaining 27% (1-0.730 = 0.27) can be explained by other variables outside the model. The coefficient of determination indicated by the adjusted R square of 0.730 is included in the strong influence category.

	Table 7: Coefficient of determination test			
Model	R	R Square	Adjusted R Square	
1	$0.867^{a}$	0.752	0.730	

After that, a significance test of the regression model will be carried out, namely the t test and the F test. The F test is used to simultaneously test the effect of the independent variables on the dependent variable. Based on the test results given in Table 8, the calculated  $F_{count}$  is 34.192. Comparing with the  $F_{table}$  value, so that the value of  $F_{count} > F_{table}$  is 34.192 > 2.81. In addition, it can be seen that the significance value is smaller than the significance level used, namely 0.00 < 0.05. Therefore, it can be interpreted that the variables of operating cash flow, net profit, depreciation expense, and amortization expense simultaneously have a significant effect on forecasting future cash flows Tbale 8.

Table 8: F test results				
Model		F	Sig.	
1	Regression	34,192	$0,000^{b}$	

Meanwhile, the partial test (t test) is used to determine the significance of each dependent variable for the independent variable. The value of the coefficient of determination is given in Table 9.

	Table 9: t test results				
Model			t	Sig.	
	1	(Constant)	4.005	0.000	
		Arus Kas Operasi (X <sub>1</sub> )	11.505	0.000	
		Laba Bersih ( $X_2$ )	0.190	0.850	
		Beban Depresiasi $(X_3)$	0.095	0.924	
		Beban Amortisasi ( $X_4$ )	-1.098	0.278	

Based on the test results given in Table 9, it can be interpreted as follows:

- The  $t_{count}$  value for the operating cash flow variable ( $X_1$ ) is 6.901, and it is known that the  $t_{table}$  value is 2.0141, so  $t_{count} > t_{table}$  (11.505 > 2.0141). In addition, it can be seen from the significance value, which is smaller than the significance level used, namely 0.00 < 0.05. So it can be concluded that the operating cash flow variable has a significant positive effect on predicting future cash flows.
- The  $t_{count}$  value for the net profit variable  $(X_2)$  is 0.190, and it is known that the  $t_{table}$  value is 2.0141, so that  $t_{count} < t_{table}$  (0.190 < 2.0141). In addition, it can be seen from the significance value, which is greater than the significance level used, namely 0.850 > 0.05. So, it can be concluded that the net profit variable has no significant positive effect on predicting future cash flows.
- The  $t_{table}$  value for the depreciation expense variable ( $X_3$ ) is 0.095, and it is known that the  $t_{table}$  value is 2.0141, so  $t_{count} < t_{table}$  (0.095 < 2.0141). In addition, it can be seen from the significance value that it is greater than the significance level used, namely 0.924 > 0.05. So, it can be concluded that the depreciation expense variable has no significant positive effect on predicting future cash flows.
- The  $t_{table}$  value for the amortization expense variable  $(X_4)$  is -1.098, and it is known that the  $t_{table}$  value is 2.0141, so  $t_{count} < t_{table}$  (1.098 < 2.0141). In addition, it can be seen from the significance value, which is smaller than the significance level used, namely 0.278 > 0.05. So, it can be concluded that the amortization expense variable has no significant negative effect on predicting future cash flows.

After forecasting using equation (1), a measurement of forecasting accuracy has been carried out using MAPE, which refers to equation (10), namely by averaging the absolute error of forecasting as a percentage of the actual value. Here are the calculations:

$$MAPE = \left(\frac{1}{n}\right) \sum_{t=1}^{n} \left|\frac{Y_{t} - \hat{Y}_{t}}{n}\right| \times 100$$
  
$$= \frac{1}{50} \left[ \left( \left|\frac{37,156,379 - 37,365,224}{37,156,379}\right| \times 100 \right) + \left( \left|\frac{32,903,149 - 38,115,690}{32,903,149}\right| \times 100 \right) + \cdots \right. + \left( \left|\frac{134,026,025 - 124,118,591}{134,026,025}\right| \times 100 \right) \right]$$
  
$$= \frac{1}{50} \left( 0.5620704 + 15.8420745 + \cdots + 7.3921720 \right)$$
  
$$= \frac{1}{50} \left( 871.5814228 \right)$$
  
$$= 17.43162846 \approx 17.43$$

So the results obtained from the MAPE calculation are 17.43%.

# 5. Conclussion

Explain what has been done, and draw conclusions in accordance with the objectives of the research that has been determined. The conclusions are delivered narratively, do not contain equations, tables, and figures. At the company PT. Bank XYZ, for the period January 2019 to February 2023, operating cash flow partially had a significant positive effect on cash flow forecasting; net profit partially had no significant positive effect on cash flow forecasting; amortization expense partially had no significant positive effect on cash flow forecasting; amortization expense partially had no significant positive effect on cash flow forecasting; amortization expense partially had no significant negative effect on cash flow forecasting. Simultaneously variable operating cash flow, net income, depreciation expense and amortization expense significantly affect future cash flows, with a determinant value of 0.73 or 73%. In addition, the accuracy of the cash flow forecasting results is calculated based on the MAPE value of 17.43%. This means that the ability of the regression model to forecast can be said to be good.

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