

**EFFECT OF CASH FLOW VOLATILITY, GROWTH
OPPORTUNITIES, AND DIVIDEND POLICY ON HEDGING
DECISIONS**

**(Empirical Study on Mining Companies Listed on the Indonesia Stock
Exchange 2016-2020)**

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Abstract

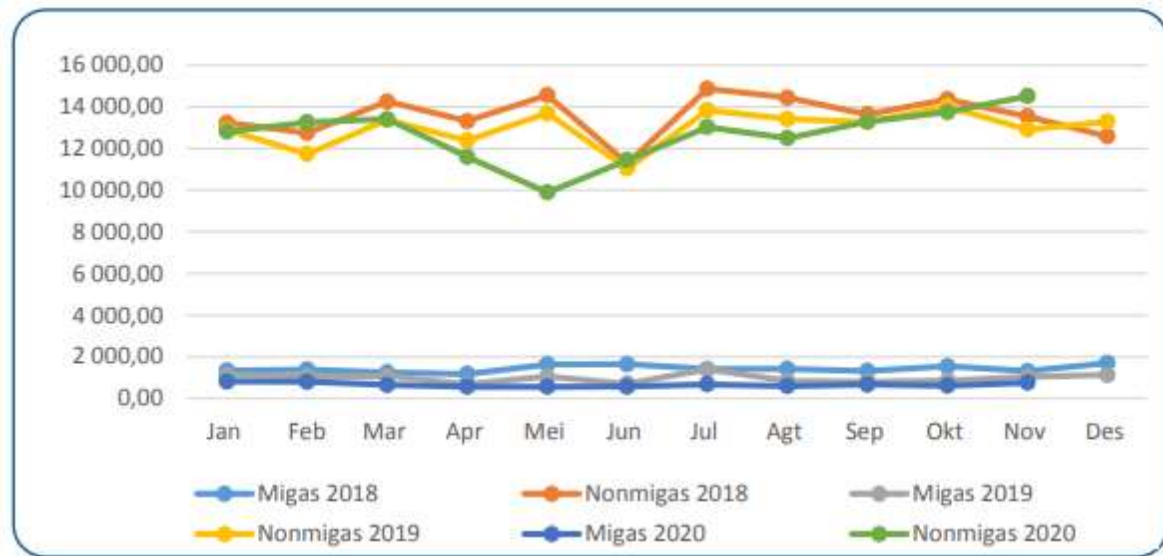
This study aims to examine the effect of Cash Flow Volatility, Growth Opportunities, and Dividend Policy on Hedging Decisions. This type of research is quantitative associative. With the population study consist of mining companies listed on the Indonesia Stock Exchange in 2016 – 2020. Meanwhile, the sampling technique used is purposive sampling. Hence, the number of samples obtained in this study as many as 13 companies with data obtained as much as 65 data. The analysis technique used is logistic regression analysis. This research is processed using e-views 10 software. The results revealed that Cash Flow Volatility, Growth Opportunities, and Dividend Policy have a significant effect on Hedging Decisions. Besides, Cash Flow Volatility and Growth Opportunity variables have a significant effect on Hedging Decisions, while Dividend Policy Variables have no effect on Hedging decisions.

Keywords: *Cash Flow Volatility, Dividend Policy, Growth Opportunities, Hedging Decisions*

1. INTRODUCTION

International trade, also known as trade between nations, is presently expanding rapidly. The existence of international trade can contribute to a variety of positive outcomes, such as the encouragement to meet a country's limited needs for goods or services, an increase in company profits, and the acquisition of technological know-how or processing skills for existing resources. According to Houston & Shan (2019), there are seven primary reasons why companies from the United States and other nations enter global markets: seeking production efficiency, avoiding political, trade, and regulatory barriers, expanding markets, seeking new raw materials and technologies, safeguarding processes and products, diversifying, and retaining customers.

Due to the use of different currencies in each country, businesses that engage in international trade will face more complex problems than those that only deal with the domestic market. In addition, unanticipated changes in foreign currency values can affect exporters' and importers' sales, prices, and profits (Munthe et al., 2017 in (Dewi & Purnawati, 2016)). This may result in losses for the company due to fluctuations in currency exchange rates (foreign exchange exposure).



Data source: www.bps.go.id (Data processed)

Figure 1 Indonesia's Export Development, January 2018–November2020

Compared to October 2020, the volume of Indonesia's exports in November 2020 increased by 12.94 percent due to a 12.28 percent increase in non-oil and gas exports and a 27.46 percent increase in oil and gas exports. Compared to November 2019, the total volume of exports fell 4.81 percent, with non-oil and gas exports falling 5.50 percent and oil and gas exports increasing 10.82 percent. November 2020 crude oil and gas exports increased by 133.93 percent and 18.99 percent, respectively, compared to October 2020, while oil yields decreased by 39.06 percent.

The mining sector is one that engages in export and import activities. Indonesia, according to the Association of Indonesian Environmental Observers (2016), is the second largest coal exporter in the world after Australia, the second richest tin producer in the world, the second largest copper producer in the world with a yield of 10.4% of the world's total copper production, the fourth largest nickel producer in the world, and the second largest exporter of liquid natural gas (LNG). Thus, mining companies become extremely susceptible to foreign exchange risk. According to Ariani & Sudiarta (2017), actively exporting mining companies will benefit when the local currency depreciates, as the depreciation will increase the company's revenue in local currency. On the other hand, when the local currency appreciates, the company will incur a loss, as its income will be reduced when converted to local currency. As for mining companies that import or borrow in foreign currency will incur losses due to the need to issue additional local currency. As a result, this exchange rate fluctuation poses a threat to the company.



Data source: www.bi.go.id (Data processed)

Figure 2 Rupiah Exchange Rate Against Dollar (2016 -2020)

The currency fluctuations graph demonstrates that the rupiah exchange rate against the dollar is fluctuating. In addition, the rupiah exchange rate has weakened in recent years. At the end of September 2016, the value of the rupiah had strengthened to the point where the exchange rate against the dollar had only reached IDR 12.886. This was influenced or caused by internal factors, specifically a positive outlook on the potential for inflows of funds into the country as a result of the tax amnesty policy. Numerous investors are gaining interest and recognizing that the tax amnesty's potential is quite promising; consequently, the rupiah will strengthen, and this bodes well for the future stability of the economy. The strengthening is due to a combination of domestic and international fundamental factors and sentiment (Hutagaol-Martowidjojo & Valentincic, 2016).

Companies must have a plan to mitigate these risks in order to reduce the likelihood of financial losses (Ayuningtyas et al., 2020). In this instance, it pertains to minimizing the risks the company faces. As stated by Darmawi (2014:17) in (Emilia, 2021), risk management is an effort to identify, analyze, and control risks in all company activities in an effort to increase effectiveness and efficiency. Uncertainty is closely related to risk.

High movement fluctuations are indicative of uncertainty. According to Guniarti (2014), the greatest risk associated with international transactions is fluctuations in foreign exchange rates. These fluctuations have a direct impact on exporters' and importers' sales, product selection, and profits (Cahyani & Priyono, 2022). Hedging is a method that can be implemented by the company to mitigate potential risk. By implementing a hedging policy, the company can safeguard its debt or income from fluctuations in foreign currency values. Based on the description above, the purpose of this study is to find out and provide

empirical evidence of the effect of Cash Flow Volatility, Growth Opportunities, and Dividend Policy on Hedging Decisions.

2. THEORETICAL BASIS

2.1. Signaling Theory

The theory of signaling explains how owners are informed of management's success or failure. The theory of signaling is concerned with information asymmetry. The positive aspect of signaling theory is that companies that provide good information will differentiate themselves from companies that do not have "good news" by informing the market about their condition. However, signals about good future performance given by companies with poor past financial performance will not be trusted by the market (Wolk and Tearney in (Sahbandi, 2019)).

Signal theory, according to Brigham and Houston in (Afrida, 2021), is an action analyzed by a company's management that provides signals or instructions to investors regarding how to evaluate the company's prospects. If the company's prospects are favorable, managers will confidently inform investors as a more effective signal.

2.2. Risk and Risk Management

According to Joel G. Siegel and Jae K. Shim in (Marta et al., 2020), risk is a condition that leads to a specific set of outcomes, for which the decision maker knows the probability of occurrence. According to Fahmi and Holiawati (2019), there are two types of risk: systematic risk and unsystematic risk. According to Fahmi and Holiawati (2019), risk is a form of situation that will occur in the future, with decisions based on various current developments.

Financial Risk is a type of risk that frequently occurs. Financial risk is the risk posed by financial transactions, according to Brigham & Houston (2019). Financial risk is one of the risks that can be mitigated through risk management. Changes in currency exchange rates versus foreign currencies constitute one type of financial risk (foreign exchange).

2.3. Types of Foreign Exchange Exposure

Foreign exchange exposure is one of the risks associated with foreign exchange rate fluctuations that companies face. According to research conducted by Levi in (Putro & Chabachib, 2012), foreign exchange exposure is the sensitivity of changes in the real value of assets, liabilities, or operating income expressed in domestic currency to unanticipated fluctuations in exchange rates.

The international financial literature divides the types of exposures faced by companies related to changes in exchange rates as follows:

- 1) Transaction Exposure

Accounting exposure is the exposure that occurs because the company enters into a certain contract, which then raises a certain amount of money value that is vulnerable to changes in exchange rates.

- 2) Accounting Exposure

Accounting exposure occurs because financial statements in a certain currency, then converted to financial statements in another currency, are vulnerable to changes in

exchange rates. Changes in the exchange rate can cause such a conversion process to result in a profit or loss.

3) Operation Exposure

Operating exposure is a company's operations that are vulnerable to changes in exchange rates.

4) Economic Exposure

Economic exposure is a combination of transaction exposure and operating exposure. Economic exposure is the value of a company that is vulnerable to changes in exchange rates.

2.4. Hedging

According to Suryani & Fathoni (2017), hedging is a strategy used to protect the value of a company's assets against losses resulting from existing risks. According to Guniarti (2014), hedging is a measure taken by the company to avoid or reduce the risk of unanticipated fluctuations in exchange rates.

In order to hedge, derivatives must be utilized. Using the derivative method, hedging activities are possible. In accordance with PSAK 55, derivative instruments are rights or obligations that meet the definition of assets or liabilities, so derivative instruments must be disclosed in the financial statements. Derivative instruments are utilized to mitigate the risk that a transaction may incur in the future.

According to Luciana in (Hasanah, 2021), derivatives are instruments used in international exchanges for spot transactions (foreign exchange). Examples of derivative transactions include swaps, options, exchange rates, and spot rates.

2.5. Cash Flow Volatility

According to Kasmir in (Sugiyanto et al., 2021), cash is the company's cash and is recorded in the current assets position on the balance sheet. As one of the pillars of running financial operational activities, cash flow is a crucial unit for planning or implementing audits as well as making new investments, as well as being a vital component of carrying out financial operational work (Maruta, 2017). According to Desra Afri in (Taufiq, 2017), cash flow volatility refers to the fluctuation of a company's cash flows. It may be difficult for a company to predict its future cash flows if there is an excessive amount of volatility.

The measurement of stable company profits will increase the interest of investors in investing in the company. Therefore, cash flow fluctuations must be stable in order to reduce volatility. In order to achieve a stable cash flow or a low level of volatility, businesses must hedge their foreign currency activities. This is done to ensure that the company's cash flow remains stable and is no longer affected by future exchange rates.

2.6. Growth Opportunity

Growth opportunity is the opportunity a company has to develop itself in the marketplace. The expansion of a business can be characterized as its growth. The greater the company's growth, which also indicates its potential for growth, and the greater its size, the greater its need for capital (Holiawati, 2017). According to Kussulistiyanti et al. (2016), growth prospects can be expressed as follows:

$$MVBE = MVE / BVE$$

Information:

MVBE : Market Value Book Equity
MVE : Market value
BVE : Book value.

2.7. Dividend Policy

The dividend policy is an integral component of the firm's funding decisions. Dividend policy is the distribution of a company's profits between dividend payments and retained earnings (Van Horne & Wachowicz, 2014). The primary objective of the company's dividend policy is to determine the appropriate profit allocation between dividend payments and the addition of retained earnings (Lestari & Chabachib, 2016).

Dividend policy is characterized by the dividend payout ratio (DPR). The dividend payout ratio is the annual dividend that must be paid to shareholders, which is part of the after-tax and interest income. It can be assumed that the higher a company's dividend payout ratio, the lower its need for hedging, relative to a company with no shortage of funds.

$$\text{DPR} = \text{DPS} / \text{EAT} \times 100\%$$

Information:

DPS : Dividend Per Share
EAT : Earnings per share.

3. RESEARCH METHOD

3.1. Types of research

This research uses quantitative research as associative method. This type of quantitative research can be interpreted as a type of research based on the philosophy of positivism, used to examine certain populations or samples, sampling techniques are generally carried out randomly, data collection uses research instruments, data analysis is quantitative/statistical, with the aim of testing hypotheses which has been set. While the associative method is a research method that is asking the relationship between two or more variables.

The data needed in the study is secondary data, namely the company's financial statements using profits and cash flows to predict Financial Distress conditions that are not included in banks listed on the Indonesian stock exchange in 2015-2020.

Table 1 Research Sample

No	Code	Company name
1	ADRO	Adaro Energy Indonesia Tbk
2	BSSR	Baramulti Suksessarana Tbk
3	BYAN	Bayan Resources Tbk
4	GEMS	Golden Energy Mines Tbk
5	HRUM	Harum Energy Tbk
6	INDY	Indika Energy Tbk
7	ITMG	Indo Tambangraya Megah Tbk
8	KKGI	Natural Resources Indonesia Tbk
9	MBAP	Mitrabara Adiperdana Tbk
10	MYOH	Samindo Resources Tbk
11	PTRO	Petrosea Tbk
12	TOBA	TBS Energi Utama Tbk
13	MEDC	Medco Energi Internasional Tbk

The data collection method used in this study is documentation, the data are as follows:

- 1) Mining sector companies listed on the IDX during the period 2016 - 2020.
- 2) During the study (2016 - 2020) Mining companies did not experience delisting from the Indonesia Stock Exchange (IDX)
- 3) Companies that disclose financial statements based on foreign currencies other than rupiah in mining companies listed on the IDX during the 2016 - 2020 period.
- 4) Companies that distribute dividends with the required data in full

3.2. Data Analysis Technique

The quantitative associative method is used to analyze the data in this study, and descriptive statistics and logistic regression models are employed in Microsoft Excel and eviews 10 to determine the level of significance of each variable's regression coefficient on the dependent variable.

3.3. Descriptive Statistics

Statistics utilized in the questionnaire to determine the study's variable descriptions. The descriptive statistics provide information from the mean or average, standard deviation, maximum or highest value in the data, and minimum or lowest value in the data.

3.4. Logistic Regression Analysis

Logistic regression analysis is an analytical tool used to measure how far the influence of the independent variable on the dependent variable in this case the dependent variable in the form of a dummy variable. Based on the data in this study, the dependent variable uses a dummy variable. Where companies that use hedging decisions will be given a number 1 and companies that do not make hedging decisions are given a number 0.

- 1) Assessing the Overall Model (Overall Model Fit)

The hypotheses used to assess model fit are:

H0: The hypothesized model fits the data

Ha: The hypothesized model does not fit the data

From this hypothesis it is clear that the null hypothesis will not be rejected in order to produce a fit model with the data. The overall assessment of the model can be assessed by comparing the results between the initial -2 log likelihood (block number = 0) and the final -2 log likelihood value (block number = 1). In other words, the chi square value is obtained from the values $2\log L1 - 2\log L0$. Furthermore, if there is a decrease, then the model shows a good regression model.

- 2) Assessing the Feasibility of the Regression Model (Goodness of fit)

Hosmer and Lemeshow's goodness of fit test is used as a test of empirical data whether there is a match with the model (there is no difference between the model and the data so that the model is said to be fit). With a probability value of <0.05 , the null hypothesis is rejected, which means that there is a significant difference between the model and the observation value, so the Godness fit of the model is not good because the model cannot predict the observed value. If the probability value is > 0.05 , then the null hypothesis can be said that the model can be accepted because it matches the observation data (Ghozali, 2016)

3.5. Coefficient of Determination Test (Pseudo R-Square)

The coefficient of determination is the square of the correlation coefficient as a measure to determine the ability of each variable used. In this study, the test used was McFadden R-squared because according to Ghozali (2017) the coefficient of determination (McFadden R-squared) essentially measures how far the model's ability to explain variations in the dependent variable is.

3.6. Hypothesis Testing

This research hypothesis will be tested by logistic regression analysis. It aims to answer the formulation of the research problem, namely the influence between two or more independent variables on the independent variable.

The hypothesis will be tested using a significant level of 5%, then the hypothesis is accepted, and vice versa. Thus, the logistic regression analysis equation is as follows:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Information:

Y	: Hedging
a	: Constant
b ₁₂₃	: Regression coefficient
X ₁	: Cash Flow Volatility
X ₂	: Growth Opportunity
X ₃	: Dividend Policy
e	: Error

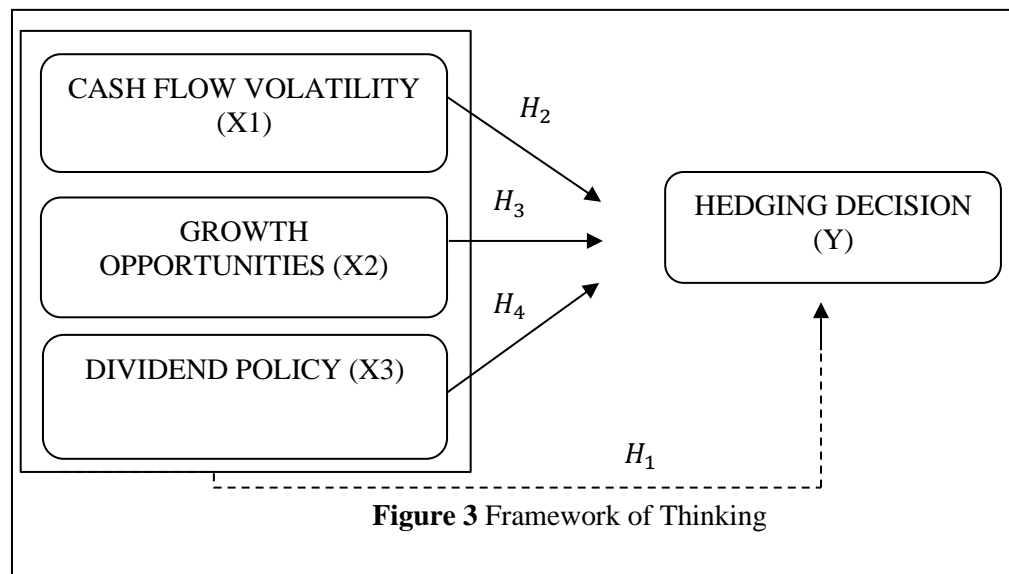
As for how to test the hypothesis, namely:

1) Simultaneous Test (F Test)

Tests are conducted to determine whether the independent variables together have a significant effect on the dependent variable. To decide whether the independent variable has an effect on the dependent variable simultaneously is by comparing the calculated F with the F table value according to the significance level used (5%).

2) Partial Test (t Test)

The individual parameter significance test (t statistical test) aims to measure how far the influence of one independent variable individually in explaining the variation of the dependent variable (Ghozali, 2011: 98). If the significance value of t of each variable obtained from the test is smaller than the significance value used, which is 5%, then partially the independent variable has an effect on the dependent variable which shown as follows:



- H1: It is suspected that Cash Flow Volatility, Growth Opportunities, and Dividend Policy have an influence on Hedging Decisions.
- H2: It is suspected that cash flow volatility has an effect on hedging decisions.
- H3: It is suspected that the Growth Opportunity has an influence on the Hedging Decision.
- H4: It is suspected that the dividend policy has an effect on the hedging decision.

4. RESULT AND DISCUSSION

4.1. Research Results

The analysis and test of this data is processed by the computer program E-Views 10. This analysis technique is used to determine the effect of Cash Flow Volatility, Growth Opportunities, and Dividend Policy on Hedging Decisions.

4.1.1. Descriptive Analysis

Based on the calculation of data processing through the E-views application regarding descriptive statistics, it is obtained as follows:

Table 3 Descriptive Statistics Test Result

	HEDGING_DECISIONS	CASH_FLOW_VOTALITY	GROWTH_OPPORTUNITIES	DEVIDEND_POLICY
Mean	0.784615	0.120154	269.3214	0.540308
Median	1.000000	0.070000	209.0900	0.330000
Maximum	1.000000	0.910000	1137.990	8.010000
Minimum	0.000000	0.010000	9.030000	-0.320000
Std. Dev.	0.414288	0.151198	253.8438	1.059074
Skewness	-1.384690	3.200896	1.399885	5.554888
Kurtosis	2.917367	14.95129	4.947487	39.39962
Jarque-Bera	20.78997	497.8356	31.50177	3922.640
Probability	0.000031	0.000000	0.000000	0.000000
Sum	51.00000	7.810000	17505.89	35.12000
Sum Sq. Dev.	10.98462	1.463098	4123949.	71.78479
Observations	65	65	65	65

From the results of the e-views output regarding the descriptive statistical test above, it can be concluded that:

- 1) The hedging decision variable can be seen that the mean value is 0.784615, the standard deviation is 0.414288, the median is 1.0000000 and the maximum value is 1.0000000. And the minimum value of 0.000000 obtained by PT. Natural Resources Indonesia Tbk. in the 2016-2020 period, PT Samindo Resources Tbk. in the 2016-2019 period, and PT. Medco Energi Internasional Tbk. in the 2016-2020 period.
- 2) Variable Cash Flow Volatility can be seen that the mean value is 0.120154, standard deviation is 0.414288, the median is 0.070000 obtained by PT. Resource Alam Indonesia Tbk in the 2016 period and the maximum value of 0.910000 was obtained by PT. Samindo Resources Tbk. in the 2019 period and a minimum value of 0.010000 obtained by PT. Adaro Energy Indonesia Tbk. in the 2019 period.
- 3) The growth opportunity variable can be seen that the mean value is 269.3214, standard deviation is 253.843, median is 209.0900 obtained by PT. Mitrabara Adiperdana Tbk in the 2020 period and the maximum value of 1137,990 was obtained by PT. Bayan Resources Tbk in the period 2016. Meanwhile, a minimum value of 9.030000. Obtained by PT. Adaro Energy Indonesia Tbk. in the 2018 period.
- 4) Dividend policy variables can be seen that the mean value is 0.540308, the standard deviation is 1.059074, the median value is 0.330000 obtained by PT. Baramulti Suksessarana Tbk in the 2020 period and the maximum value of 8.010000 was obtained by PT. Indika Energy Tbk. in the 2019 period. Meanwhile, the minimum value of -0.320000 was obtained by PT. Medco Energi Internasional Tbk. in the 2019 period.

4.1.2. Logistic Regression Analysis

Based on the results of testing the data with the logistic method above, the logistic equation model used in this study, namely:

$$Y = 1.71 - 0.0003(X1) + 1.00645(X2) + 5.44613(X3)$$

However, to interpret the effect of each independent variable, it cannot be directly based on the coefficient value of the independent variable, but also from the value of the odds ratio. Thus, it is necessary to calculate the odds ratio value to interpret the influence of the variables of Cash Flow Volatility, Growth Opportunities, and Dividend Policy on Hedging decisions.

Table 4 Odds Ratio Calculation Results

	Coefficient	Odds Ratio
C	0.54154	1.71865
VOLATILITY_FLOW_CASH	-10.40484	0.00003
OPPORTUNITY_GROWTH	0.006425	1.00645
DECISION_HEDGING	1.694905	5.44613

$$Y = 1.71 - 0.0003(X1) + 1.00645(X2) + 5.44613(X3)$$

1) Model Fit Test

a) Assessing the Overall Model (Overall Model Fit)

Table 5 Overall Model Test Results

McFadden R-squared	0.243283	Mean dependent var	0.784615
S.D. dependent var	0.414288	S.E. of regression	0.362325
Akaike info criterion	0.911582	Sum squared resid	8.008032
Schwarz criterion	1.045390	Log likelihood	-25.62641
Hannan-Quinn criter.	0.964378	Deviance	51.25281
Restr. deviance	67.73053	Restr. log likelihood	-33.86526
LR statistic	16.47771	Avg. log likelihood	-0.394252
Prob(LR statistic)	0.000905		

This test can be known through the results of the logistic regression test, namely the Sum Squared Residual value. If the Sum Squared Residual value shows a positive value, it can be concluded that the model fits the data (Ghozali, 2011). The table shows that the sum squared residual value in this study is positive, namely 8.008032. So it can be concluded that the model used is compatible with the observation data.

b) Assessing the Feasibility of the Regression Model (Goodness of fit)

Table 6 Lemeshow Hosmer Test Results

H-L Statistic	10.0127	Prob. Chi-Sq(8)	0.2641
Andrews Statistic	30.8844	Prob. Chi-Sq(10)	0.0006

The feasibility test of the model can be known through the Andrews and Hosmer-Lemeshow Goodness of Fit Test. Table 6 regarding the feasibility test of the model with the Andrews and Hosmer Lemeshow Goodness of Fit Test explains that the Probability Chi-Squared HL (Hosmer-Lemeshow) Statistic value is $> (0.05)$, which is 0.2641. Thus, the model has been feasible to be used in this study.

4.1.3. Coefficient of Determination Test (Pseudo R-Square)

Table 7 McFadden R-squared Test Results

McFadden R-squared	0.243283	Mean dependent var	0.784615
S.D. dependent var	0.414288	S.E. of regression	0.362325
Akaike info criterion	0.911582	Sum squared resid	8.008032
Schwarz criterion	1.045390	Log likelihood	-25.62641
Hannan-Quinn criter.	0.964378	Deviance	51.25281
Restr. deviance	67.73053	Restr. log likelihood	-33.86526
LR statistic	16.47771	Avg. log likelihood	-0.394252
Prob(LR statistic)	0.000905		

Based on the results of the coefficient of determination in the logistic regression test, it shows that the McFadden R-squared is 0.243283 (24.3%). This means that variations in the variables of Cash Flow Volatility, Growth Opportunities and Dividend Policy can explain

the Hedging Decision variable by 24.3%. While the remaining 75.7% can be explained by variations of other variables outside this research model

4.1.4. Hypothesis testing

1) Simultaneous test (F Test – Statistics)

Table 8 F-Test Result

McFadden R-squared	0.243283	Mean dependent var	0.784615
S.D. dependent var	0.414288	S.E. of regression	0.362325
Akaike info criterion	0.911582	Sum squared resid	8.008032
Schwarz criterion	1.045390	Log likelihood	-25.62641
Hannan-Quinn criter.	0.964378	Deviance	51.25281
Restr. deviance	67.73053	Restr. log likelihood	-33.86526
LR statistic	16.47771	Avg. log likelihood	-0.394252
Prob(LR statistic)	0.000905		

Based on the results of the logistic regression test in table above, it shows that the Probability Likelihood Ratio Statistics (LR statistic) is worth 0.000905 < 0.05. Hence, the H1 hypothesis is accepted and it can be concluded that simultaneously the variables of cash flow volatility, growth opportunities, and dividend policies affect the Hedging Decision variable.

From Table 8, it can be seen that the significance probability value of the Profit variable is below 0.05, which is 0.0024 and the significance of the Cash Flow variable is above 0.05, which is 0.7544. Furthermore, the results of testing each hypothesis proposed in this study will be explained based on the t-test shown as follows:

2) Partial Test (t test – Statistics)

Partial effect test aims to determine how the effect of each independent variable (Cash Flow Volatility, Growth Opportunities and Dividend Policy) on the dependent variable (Hedging Decisions) partially. This test can be known through the value of the Probability z-Statistic on the results of the logistic regression test. If the value of Probability z-Statistic < (0.05), then all independent variables partially (Cash Flow Volatility, Growth Opportunities and Dividend Policy) significantly affect the dependent variable (Hedging Decisions).

Table 9 t-test Result

Dependent Variable: KEPUTUSAN_HEDGING
Method: ML - Binary Logit (Newton-Raphson / Marquardt steps)
Date: 07/18/22 Time: 00:22
Sample: 2016 2020
Included observations: 65
Convergence achieved after 5 iterations
Coefficient covariance computed using observed Hessian

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.541540	0.554526	0.976580	0.3288
VOLATILITAS_ARUS_KAS	-10.40484	4.319616	-2.408741	0.0160
PELUANG_PERTUMBUHAN	0.006425	0.002896	2.218741	0.0265
KEBIJAKAN_DEVIDEN	1.694905	0.916336	1.849654	0.0644

4.2. Discussion

4.2.1. Effect of Cash Flow Volatility on Hedging Decisions

The value of the Probability z-Statistic of the Cash Flow Volatility variable (X1) is $0.0160 < 0.05$. Thus, the hypothesis H2 is accepted and it can be concluded that the Cash Flow Volatility variable has a significant influence on the Hedging decision variable.

This shows that Cash Flow Volatility has an influence on Hedging Decisions. The higher the Cash Flow Volatility, the higher the level of Hedging Decisions. This is due to the exchange rate risk which can cause high cash flow volatility. Cash flow fluctuations that are too high or low will affect investors' decisions to invest their funds in the company. The results of this study are supported by previous research (Octavianti, 2020 ; Samya, 2016; Altuntas et al., 2017).

4.2.2. Effect of Growth Opportunities on Hedging Decisions

The Probability z-Statistic value of the Growth Opportunity variable (X2) is $0.0265 < 0.05$. Thus, the H3 hypothesis is accepted and it can be concluded that the Growth Opportunity variable has a significant influence on the Hedging decision variable.

The greater the level of opportunity for the company to develop its company, the better the performance improvement, the better the performance, the higher the level of prudence in managing the risks faced by the company and the higher the opportunity to make hedging decisions. This is a good signal for investors, the company's opportunity is a profitable prospect, because the invested investment is expected to provide high returns in the future. The results of this study are in line with the research conducted (Bodroastuti et al., 2019); (Utami, Sriyanto, Purbasari, 2018); (Saragih & Musdholifah, 2017).

4.2.3. The Effect of Dividend Policy on Hedging Decisions

The value of the Probability z-Statistic of the Dividend Policy variable (X3) is $0.0644 > 0.05$. Thus, the H4 hypothesis is rejected and it can be concluded that the dividend policy variable has no significant effect on the hedging decision variable. The test results using logistic regression show that dividend policy has no effect on hedging decisions. This indicates that the higher the DPR (dividend payout ratio), the smaller the probability of the company to make hedging decisions. This does not provide a meaningful signal for investors, because investors only see the company's ability to pay its obligations. The results of this study are in line with the research conducted by Annisa & Puryandani (2019) and Goklas (2017).

5. CONCLUSION

5.1. Conclusion

From the results and discussion above, it can be concluded that the three hypotheses that serve as the main basis are as follows:

- 1) The results of testing the first hypothesis state that Cash Flow Volatility, Growth Opportunities, and Dividend Policy have a significant effect on Hedging Decisions.
- 2) The result of testing the second hypothesis states that Cash Flow Volatility has a significant negative effect on Hedging Decisions.

- 3) The results of testing the third hypothesis state that Growth Opportunities have a significant positive effect on Hedging Decisions
- 4) The results of testing the first hypothesis state that dividend policy has no significant effect on hedging decisions

5.2. Suggestions

- 1) In future research, if possible, it can be developed by comparing hedging decisions on the Indonesia Stock Exchange with other stock exchanges.
- 2) In future research, it is suggested to examine other variables related to hedging decision making. It is necessary to expand the theoretical study that explains the hedging decision making.
- 3) In future research, it is expected to use other models besides the Logistics Regression data analysis model.

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