

# The Effect of Corporate Social Responsibility, Profitability, Activity Ratio, Solvency Ratio, and Liquidity Ratio on Corporate Value

(Case Study on Mining Companies Listed on the IDX for the 2014-2018 Period)

Mustari<sup>1\*</sup>

Universitas Trunajaya

[mustaritari33@gmail.com](mailto:mustaritari33@gmail.com)

\*Corresponding Author

Submitted: October 5, 2024

Accepted: Nov 7, 2024

Published: April 11, 2025

## ABSTRACT

This research examines the influence of Corporate Social Responsibility (CSR), Profitability, Activity Ratios, Solvency, and Liquidity on Firm Value (Tobin's Q) in mining companies listed on the IDX from 2014 to 2018. Driven by fluctuating coal prices, the study uses a descriptive and explanatory approach with multiple linear regression analysis through Eviews 10. Model testing includes the Common Effect Model, Fixed Effect Model, and Random Effect Model, with selection tests like the Chow and Hausman tests. Classic assumption tests cover normality, heteroskedasticity, autocorrelation, and multicollinearity. The sample includes 35 financial reports meeting the requirement of Annual and Sustainability Reports, analyzed using secondary data. The findings reveal that CSR and Profitability (EPS) do not impact Firm Value, while Activity Ratio (TATO), Solvency (DAR), and Liquidity (CR) do, with the latter having a significant impact ( $p = 0.0249$ ). The coefficient of determination ( $R^2$ ) indicates that CSR, Profitability, Activity Ratios, Solvency, and Liquidity have a collective influence on Firm Value.

**Keywords:** Turn Asset Turn Over, Debt to Asset Ratio, Current Ratio.

## INTRODUCTION

The value of a company plays a critical role in investor decisions, influencing demand for its shares and investor retention (Maximillian & Septina, 2022). Company value is essentially the price potential buyers are willing to pay if the company is sold. In 2015, many mining companies in Indonesia experienced substantial losses, leading to a marked decline in their value. Various elements affect firm value, notably Corporate Social Responsibility (CSR) and financial ratios like profitability, activity, solvency, and liquidity. Financial ratios serve as essential benchmarks, helping stakeholders assess performance, making these metrics vital for companies aiming to boost their value. In this study, CSR measurement follows the Global Reporting Initiative (GRI) standards, specifically GRI 4.0, which encompasses 91 items covering economic, environmental, and social dimensions. However, many mining companies report CSR activities superficially or selectively, falling short of comprehensive disclosure. This limited approach may contribute to CSR's lack of significant impact on firm value in this context. In Indonesia, CSR reporting is integrated into the Statement of Financial Accounting Standards (PSAK) No. 1 on financial report presentation, which allows companies to include environmental and value-added reports (Viranda, et al., 2023).

Table 1. List of Valuation Ratios as a Proxy for Company Value Mining Companies 2014-2018



(Up and Down Trend in the Profitability of Mining Companies)

No	Company	Company Value				
		2014	2015	2016	2017	2018
1.	Antam Inc.	5.07	3.21	7.55	5.39	5.93
2.	Bukit Asam Inc.	0.61	1.01	1.98	0.61	0.51
3.	Indika Energi Inc	1.01	0.64	0.79	1.13	0.92
4.	ITMG Inc	1.65	0.84	1.82	2.01	1.91
5.	Medco Energy Inc	5.41	1.66	1.95	3.76	3.06
6.	Petrosea Inc	1.39	0.86	1.28	2.06	1.95
7.	Vale Inc	5.46	1.83	4.30	4.64	4.04

Source: (World Bank, 2020)

Financial ratios are integral to company valuation, providing foundational insights for investment decisions. These ratios help analysts ascertain a company's efficiency, risks, and growth projections. The specific ratios relevant to this study include profitability, activity, solvency, and liquidity. Profitability, in this study, is represented by Earnings per Share (EPS). EPS offers an indication of the return per share outstanding from a company's stock. A higher EPS typically reflects a company's strong ability to generate profits (Yusnita, 2023). The activity ratio, in this context, is represented by Total Asset Turnover (TATO). TATO measures the efficiency with which a company utilizes its assets to generate sales, indicating how well the company's total assets contribute to its revenue. Solvency is measured by the Debt to Asset Ratio (DAR), a crucial ratio for assessing the proportion between a company's total debt and its total assets. This ratio provides insights into the company's capacity to sustain its debt in relation to its assets. Liquidity, represented by the Current Ratio (CR), is a significant factor influencing firm value. CR gauges the extent to which a company can meet its short-term obligations, reflecting its financial health and stability.

This study is designed to closely examine firm value in the mining sector, focusing specifically on the influence of various financial and non-financial determinants. Firm value, especially for mining companies listed on the Indonesia Stock Exchange (IDX), is affected by multiple factors, including Corporate Social Responsibility (CSR), profitability, activity ratios, solvency, and liquidity. The research questions guiding this investigation include: the extent to which CSR disclosures influence firm value, how profitability contributes to firm value, the effect of activity ratios, the role of solvency, and the impact of liquidity on firm value from 2014 to 2018. The research objectives are aligned to capture empirical evidence on these relationships within the specified timeframe. The study aims to assess how CSR disclosures contribute to firm value and to quantify the impact of profitability as an indicator of performance. Additionally, it explores the influence of activity ratios and solvency on firm value, providing insights into how operational efficiency and financial stability factor into market valuations. Lastly, the research evaluates the role of liquidity, particularly in terms of short-term financial health, in determining the overall firm value of IDX-listed mining companies. This approach allows for a nuanced understanding of each variable's unique impact within the sector (Lolo & Yuliandhari, 2020; Irawan, et al., 2022).

Through this exploration, the study offers theoretical concepts, ideas, and presents previous research findings as benchmarks. These serve to compare, strengthen, enrich, and refine the discussion, analysis, and interpretations provided. The presentation is structured chronologically and maintains a clear logical relationship between each paragraph, ensuring coherence throughout the narrative.

### LITERATURE STUDY

To enhance the literature review's structure and flow, the discussion could be organized under broader thematic sections, allowing for a more cohesive and logical progression. Key themes might include: (1) Corporate Social Responsibility (CSR) and Firm Value: This section would consolidate recent studies examining CSR's impact on firm value, exploring measurement models like the Global Reporting Initiative (GRI) and relevant findings on CSR's role in investor perception and company valuation. For instance, recent studies show mixed results on CSR's impact, often tied to

the depth of CSR reporting and adherence to standards. (2) Financial Performance Indicators: A comprehensive look at profitability, activity ratios, solvency, and liquidity as critical indicators of financial health. Grouping these ratios would streamline the discussion, linking profitability metrics (e.g., EPS) with firm value, then expanding into activity ratios (e.g., TATO), solvency (e.g., DAR), and liquidity (e.g., CR). Each ratio's significance and potential impact on firm value could be discussed with recent supporting studies. (3) Integration of CSR with Financial Performance: Addressing the interplay between CSR and financial performance indicators could offer insight into why CSR may not directly influence firm value. For instance, mining companies often face challenges in fully integrating CSR due to selective reporting, as shown in recent research.

### Corporate Social Responsibility (CSR)

Fadiyah Meilani dan Nur Sandi Marsuni (2019) defines CSR as a company's duty towards its stakeholders to act ethically, minimize negative impacts, and maximize positive impacts encompassing social, economic, and environmental aspects (commonly referred to as the triple bottom line). This means that CSR activities are designed not only to benefit the company but also to positively influence society and the environment.

### Financial Ratios

Financial ratio analysis begins with fundamental financial statements, namely, the balance sheet and the comprehensive income statement. According to Muhammad Asmaldi Firman dan Afida Syakiriyah (2024), financial ratios are derived by combining numbers from the income statement and the balance sheet. These ratios are pivotal in evaluating a company's performance, efficiency, risks, and potential for growth. They act as essential indicators for stakeholders to gauge the company's overall financial health and make informed decisions.

### Profitability

Profitability ratios are crucial in assessing how well a company can generate profits. As noted by Ayub Usman Rasid (2018), these ratios gauge a company's ability to produce earnings relative to sales, assets, and equity. One fundamental measure under the profitability ratio is Earnings per Share (EPS), which indicates how much profit a company has generated per share of its outstanding stock, providing insight into its profit generation efficiency.

$$\text{EPS} = \frac{\text{Net Income} - \text{Preferred Dividends}}{\text{Average Outstanding Shares}}$$

### Activity Ratio

Activity ratios are keen indicators of a company's operational efficiency. Muyasaroh dan Nafilah (2024) highlights that these ratios measure how effectively a company utilizes its assets to generate revenues. A commonly used activity ratio is the Total Asset Turnover (TATO), which reflects the efficiency of a company in using its assets to produce sales. High TATO values typically indicate efficient management and utilization of assets.

$$\text{TATO} = \frac{\text{Net Sales}}{\text{Total Assets}}$$

### Solvency (Leverage)

Solvency ratios are paramount in understanding a company's ability to meet long-term obligations. Anis Syarifah Fitriyani, Sutardi, dan Fitriah (2022) explains that solvency ratios reveal how well a company can manage its debt to generate profit and sustain operations over the long term. These ratios, such as the Debt to Asset Ratio (DAR), provide critical insights into the company's financial leverage and risk.

$$\text{DAR} = \frac{\text{Total Debt}}{\text{Total Assets}}$$

### Liquidity

Liquidity ratios assess a company's capacity to fulfill short-term liabilities using its current assets. Nadia Iffatul Ulya dan Rifki Ismail (2018) emphasize that the Current Ratio is a vital measure of liquidity, reflecting the relationship between a company's current assets and its current liabilities. A higher current ratio suggests that the company is more capable of covering its short-term debts, thereby indicating solid financial health and stability.

$$CR = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

### The Value of the Company

The value of a company is the price a prospective buyer is willing to pay if the company were to be sold. According to Eka Yuliyanti dan Zati Rizka Fadhila (2023), an increase in the company's value represents greater prosperity for the company's owners. Factors influencing this value include profitability, CSR activities, operational efficiency, solvency, and liquidity.

$$\text{Tobin's Q} = \frac{\text{Market Value of Equity} + \text{Total Debt}}{\text{Total Assets}}$$

### Hypotheses

The hypotheses posited in this study are as follows:

1. CSR positively affects the value of mining companies listed on the Indonesia Stock Exchange (IDX) during the 2014-2018 period.
2. Profitability significantly impacts the value of these companies over the same period.
3. Activity ratios influence the value of mining companies from 2014 to 2018.
4. Solvency has either a negative or positive relationship with the company value depending on certain conditions during 2014-2018.
5. Liquidity significantly affects the value of mining companies listed on the IDX over the 2014-2018 period.

By exploring these hypotheses, the research aims to offer empirical evidence and theoretical insights that enrich comprehension and facilitate informed financial decision-making. This reformulated review maintains a coherent narrative, logically interlinking each paragraph to ensure a clear and comprehensive understanding of the factors involved.

### METHODS

To enhance transparency in the research methodology, it is important to clarify the rationale for selecting either the Fixed Effect or Random Effect Model based on the dataset's characteristics and the research objectives. While multiple models are tested to ensure robustness, a clearer explanation of the decision criteria between the Fixed Effect and Random Effect Models would help readers understand why a particular model was ultimately chosen. For instance, if data show individual company characteristics (such as specific financial strategies or unique CSR practices) that are constant over time but vary across companies, the Fixed Effect Model would likely be more suitable. This model accounts for individual heterogeneity, which is beneficial when analyzing factors that could affect firm value consistently within each company. On the other hand, if company-specific effects are assumed to be random and uncorrelated with the independent variables, the Random Effect Model might be a better fit. This approach provides a more generalized interpretation of the variables' impact on firm value across the sample. The Hausman Test could be referenced here as the statistical method used to decide between the two models, ensuring that the chosen model best represents the data without bias. By including these explanations, the study's methodological choices become more transparent, aiding other researchers in replicating or building on the study with a clear understanding of the model selection process.

### **Object of the Research**

The focus of this study is the annual reports and sustainability reports of coal mining companies listed on the Indonesia Stock Exchange (IDX) for the period of 2014-2018. These reports provide the necessary financial and non-financial data to analyze the impact of various factors on company value.

### **Types of Data and Data Sources**

The study uses secondary data, which refers to information that has already been processed and presented by other sources, often in the form of publications. The data were obtained from the official IDX website ([www.idx.co.id](http://www.idx.co.id)) and the direct websites of the companies involved. The specific data include:

1. A comprehensive list of coal mining companies that have gone public and are listed on the IDX.
2. Financial statements and sustainability reports of these companies for the years 2014 through 2018, which contain both financial and non-financial information.

### **Data Collection**

Data collection for this study was conducted through the following methods:

1. Documentation Method: Involved collecting data from existing records and reports.
2. Literature Study: Entailed reviewing previous studies and literature relevant to the research subject.

### **Population and Sampling**

The population for this study comprises all coal mining companies listed on the IDX during the 2014-2018 period. The study used a nonprobability sampling method and, more specifically, purposive sampling. This approach involves selecting samples based on specific criteria to ensure they meet the study's requirements (Sugiyono, 2013). Out of the total population, 35 samples that met these criteria were selected, representing 7 mining companies consistently listed on the IDX over the specified period.

### **Research Variables**

1. Independent Variables: Corporate Social Responsibility (CSR), Profitability (measured by Earnings Per Share - EPS), Activity Ratio (measured by Total Asset Turnover - TATO), Solvency (measured by Debt to Asset Ratio - DAR), and Liquidity (measured by Current Ratio - CR).
2. Dependent Variable: The value of the company.

### **Data Analysis Techniques**

1. Descriptive Method: This technique is used to describe and summarize the basic features of the collected data. Tools such as mean, median, standard deviation, and frequency distribution are used to present the data's overall characteristics.
2. Explanatory Research Method: This method explains relationships between the research variables. Correlation analysis tools, such as the Pearson correlation coefficient, are typically employed to assess the strength and direction of relationships among variables.
3. Verification Analysis: Employed to test and verify the hypotheses set forth in the study. Hypothesis testing tools like the t-test and F-test are applied to examine the statistical significance of each variable's effect on the dependent variable.
4. Multiple Regression Analysis: This technique determines the influence of independent variables on the dependent variable. Eviews 10 software is used to conduct regression analysis, with model selection tests (e.g., Chow test, Hausman test, Durbin-Watson test) to identify the best model fit. Classic assumption tests, including normality, heteroskedasticity, autocorrelation, and multicollinearity tests, ensure model validity.

### Coefficient of Determination (R<sup>2</sup>)

According to (Nugraha, 2022), the coefficient of determination (R<sup>2</sup>) measures the model's explanatory power regarding the variation in the dependent variable. An R<sup>2</sup> value close to 1 indicates that the independent variables provide almost all the information needed to accurately predict the dependent variable, whereas a smaller R<sup>2</sup> suggests limited explanatory power.

### T-Test (Partial)

As described by (Nugraha, 2022), the T-test is used to examine the individual impact of each independent variable on the dependent variable. The decision criteria for the T-test are:

1. If the significance probability is greater than 0.05, the hypothesis is rejected, indicating the independent variable does not have a significant effect on the dependent variable.
2. If the significance probability is less than 0.05, the hypothesis is accepted, showing the independent variable significantly affects the dependent variable.

### Hypothesis Test Design

1. Estimation of Regression Model Selection: Includes common effect, fixed effect, and random effect models as suggested by (Nugraha, 2022).
2. Panel Data Regression Model Selection: Comprises the Chow test, the Hausman test, and the Lagrange Multiplier (LM) test (Nugraha, 2022) to determine the most appropriate model for the data analysis.

### Classical Assumption Test

Before conducting the analysis, the study ensures the data meet the following classical assumptions:

1. Normality Test: To check if the data distribution resembles a normal distribution.
2. Heteroscedasticity Test: To verify that the variance of residuals is constant across observations.
3. Autocorrelation Test: To identify any correlations between successive error terms.
4. Multicollinearity Test: To detect if any of the independent variables are highly correlated.

### Research Implications

The results of this study have significant implications on understanding how Corporate Social Responsibility, Profitability, Liquidity, and Solvency influence company value during the 2014-2018 period. The findings highlight that CSR and various financial ratios are pivotal in determining the value of a company, particularly in the coal mining sector. This sector, which has experienced price instability from 2014 to 2019, can derive substantial benefits from improved financial performance and responsible corporate practices.

## RESULT

### Estimated Regression Model Selection

Billy Nugraha (2022) proposes three methods for estimating panel data regression models: the Common Effect, Fixed Effect, and Random Effect models.

Table 2. Common Effect Model

Dependent Variable: Y				
Method: Least Squares Panel				
Date: 4/15/20 Time: 21:10				
Sample: 2014-2018				
Periods Included: 5				
Cross-sections Included: 7				
Total Panel (Balanced) Observations: 35				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	10.10526	2.717927	3,718001	0.0009

X1	2.893884	1.691352	1.710989	0.0978
X2	0.469904	0.537838	0.873691	0.3895
X3	-4.044831	0.875320	-4.620974	0.0001
X4	-7.675226	2.403830	-3.192916	0.0034
X5	-1.1455424	0.484303	-2.365096	0.0249
R-Squared	0.566990	Mean Dependent Var.		2,520857
Adjusted R-Squ.	0.492333	SD Dependent Var.		1.883489
SE of Reg.	1.342000	Akaike Info Criterion		3.581004
Sum Squ. Resid.	52.22798	Schwarz Criterion		3,847636
Log Likelihood	-56.66758	Hannan-Quinn Criterion		3.673046
F-Statistic	7,594607	Durbin-Watson Stat.		1,823763
Prob. (F-Stat.)	0.000116			

Table3. Fixed Effect Model

Dependet Variable: Y				
Method: Least Squares Panel				
Date: 4/15/20 Time: 21:12				
Sample: 2014-2018				
Periods Included: 5				
Cross-sections Included: 7				
Total Panel (Balanced) Observations: 35				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
C	3.698830	3,455264	1.070491	0.2955
X1	-0.397811	1.655363	-0.240316	0.8122
X2	1.040054	0.616190	1.687878	0.1050
X3	0.309199	1.911930	0.161721	0.8729
X4	-3.644647	5,700665	-0.639337	0.5289
X5	0.166709	0.655199	0.254440	0.8014
Effect Specification				
Cross-section Fixed (Dummy Variables)				
R-Squared	0.794742	Mean Dependent Var.		2.520857
Adjusted R-Squ.	0.696576	SD Dependent Var.		1.883489
SE of Reg.	1.037501	Akaike Info Criterion		3.177367
Sum Squ. Resid.	24.75738	Schwarz Criterion		3.701629
Log Likelihood	-43.60392	Hannan-Quinn Criterion		3.361449
F-Statistic	8.095841	Durbin-Watson Stat.		2.759053
Prob. (F-Stat.)	0.000014			

Table4. Random Effect Model

Cross-section Random Effect Test Equation:				
Dependet Variable: Y				
Method: Least Squares Panel				
Date: 4/15/20 Time: 21:21				
Sample: 2014-2018				
Periods Included: 5				
Cross-sections Included: 7				
Total Panel (Balanced) Observations: 35				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>

C	3.698830	3,455264	1.070491	0.2955
X1	-0.397811	1.655363	-0.240316	0.8122
X2	1.040054	0.616190	1.687878	0.1050
X3	0.309199	1.911930	0.161721	0.8729
X4	-3.644647	5,700665	-0.639337	0.5289
X5	0.166709	0.655199	0.254440	0.8014
Effect Specification				
Cross-section Fixed (Dummy Variables)				
R-Squared	0.794742	Mean Dependent Var.	2,520857	
Adjusted R-Squ.	0.696576	SD Dependent Var.	1.883489	
SE of Reg.	1.037501	Akaike Info Criterion	3.177367	
Sum Squ. Resid.	24,75738	Schwarz Criterion	3.710629	
Log Likelihood	-43.60392	Hannan-Quinn Criterion	3.361449	
F-Statistic	8.095841	Durbin-Watson Stat.	2.759053	
Prob. (F-Stat.)	0.000014			

**Chow Test**

1. H0: The appropriate model is the Common Effect model.
2. H1: The appropriate model is the Fixed Effect model.

Table5. Chow Test

Redundant Fixed Effects Test				
Equation: Untitled				
Fixed Effects Cross-Section Test				
Cross-section Fixed (Dummy Variables)				
Cross-section Fixed (Dummy Variables)				
Cross-section Random Effect Test Equation:				
Dependet Variable: Y				
Method: Least Squares Panel				
Date: 4/15/20 Time: 21:13				
Sample: 2014-2018				
Periods Included: 5				
Cross-sections Included: 7				
Total Panel (Balanced) Observations: 35				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
C	10.10526	2.717927	3,718001	0.0009
X1	2.893884	1.691352	1.710989	0.0978
X2	0.469904	0.537838	0.873691	0.3895
X3	-4.044831	0.875320	-4.620974	0.0001
X4	-7.675226	2.403830	-3.192916	0.0034
X5	-1.145424	0.484303	-2.365096	0.0249
R-Squared	0.566990	Mean Dependent Var.	2.520857	
Adjusted R-Squ.	0.492333	SD Dependent Var.	1.883489	
SE of Reg.	1.342000	Akaike Info Criterion	3.581004	
Sum Squ. Resid.	52.22798	Schwarz Criterion	3.847636	
Log Likelihood	-56.66758	Hannan-Quinn Criterion	3.673046	
F-Statistic	7.593607	Durbin-Watson Stat.	1.823763	
Prob. (F-Stat.)	0.000116			

1. H0: The Common Effect Model (CEM) is chosen if the probability (Prob) is greater than 0.05.

- H1 : The Fixed Effect Model (FEM) is chosen if the probability (Prob) is less than 0.05.  
Based on the Chow Test, the Fixed Effect Model (FEM) is selected.

**Hausman Test**

Hypothesis testing was conducted using the Hausman Test with the following criteria:

- H0: The appropriate model is the Random Effect Model (REM).
- H1: The appropriate model is the Fixed Effect Model (FEM).

Table 6. Random Effect Model

Dependet Variable: Y				
Method: Panel EGLS (Cross-section Random Effects)				
Date: 4/15/20 Time: 21:20				
Sample: 2014-2018				
Periods Included: 5				
Cross-sections Included: 7				
Total Panel (Balanced) Observations: 35				
Swamy and Arora Estimator of Component Variances				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.602225	2.394593	3,592353	0.0012
X1	2.139985	1.423241	1.503600	0.1435
X2	0.620444	0.456403	1.359419	0.1845
X3	-3.442972	0.842944	-4.084462	0.0003
X4	-6.227087	2.266141	-2.747882	0.0102
X5	-0.831326	0.437308	-1.901008	0.0673

Effect Specification			
		SD	Rho
Cross-section Fixed (Dummy Variables)		0.492117	0.1837
Idiosyncratic Random		1.037501	0.8163
Weighted Statistics			
R-Squared	0.405052	Mean Dependent Var.	1,729317
Adjusted R-Squ.	0.302474	SD Dependent Var.	1.460985
SE of Reg.	1.220186	Akaike Info Criterion	43.17673
Sum Squ. Resid.	3.948746	Schwarz Criterion	1,965821
Log Likelihood	0.007471	Hannan-Quinn Criterion	1,729317
F-Statistic	0.405052	Durbin-Watson Stat.	1.460985
Prob. (F-Stat.)	0.302474		
Unweighted Statistics			
R-Squared	0.547685	Mean Dependent Var.	2,520857
Sum Squ. Resid	54.55647	Durbin-Watson Stat.	1.555777
Cross-section Random Effect Test Equation			
Test Summary	Chi-Sq. Statistics	Chi-Sq. df	Prob.
Random Cross-section	16.111869	5	0.065
Swamy and Arora Estimator of Component Variances			
Variable	Fixed	Random	Var (Diff.)

X1	-0.397811	2.139985	0.714611	0.0027
X2	1.040054	0.620444	0.171387	0.3108
X3	0.309199	-3.442972	2.944922	0.0288
X4	-3.644647	-6.227087	27.362186	0.6215
X5	0.166709	-0.831326	0.238047	0.0408

1. H0: The Random Effect Model (REM) is chosen if the probability (Prob) is greater than 0.05.
2. H1: The Fixed Effect Model (FEM) is chosen if the probability (Prob) is less than 0.05.

Based on the Hausman Test, the Random Effect Model (REM) was selected.

### Lagrange Multiplier (LM) Test

To further determine the most appropriate model, the Lagrange Multiplier test is conducted with the following hypotheses:

1. H0: The appropriate model is the Common Effect Model (CEM).
2. H1: The appropriate model is the Random Effect Model (REM).

Table 7. Langrange Multiplier Teest

Langrange Multiplier (LM) Test for Panel Data				
Date: 4/15/20 Time: 21:04				
Sample: 2014-2018				
Total Panel (Balanced) Observations: 35				
Probability in ( )				
Null (No Rand. Effect) Alternative	Cross-section One-sided	Period One-sided	Both	
Breusch-Pagan	0.641383 (0.4232)	0.519572 (0.4710)	1.160955 (0.2813)	
Honda	0.800864 (0.2116)	0.720813 (0.2355)	1.075988 (0.1410)	
King-Wu	0.800864 (0.2116)	0.720813 (0.2355)	1.064850 (0.1435)	
GHM	-	-	1.160955	
	-	-	(0.2805)	
	0.641383	0.519572	1.160955	

Based on the output results, it can be seen that the Prob. Breusch-Pagan (BP) value is 0.2813 (shown in the third column, labeled "Both"). According to the hypothesis: If Prob BP (0.2813) > 0.05, then H0 is accepted. In other words, the appropriate model is the Common Effect Model (CEM).

### Classic Assumption Test

1. Normality Test:

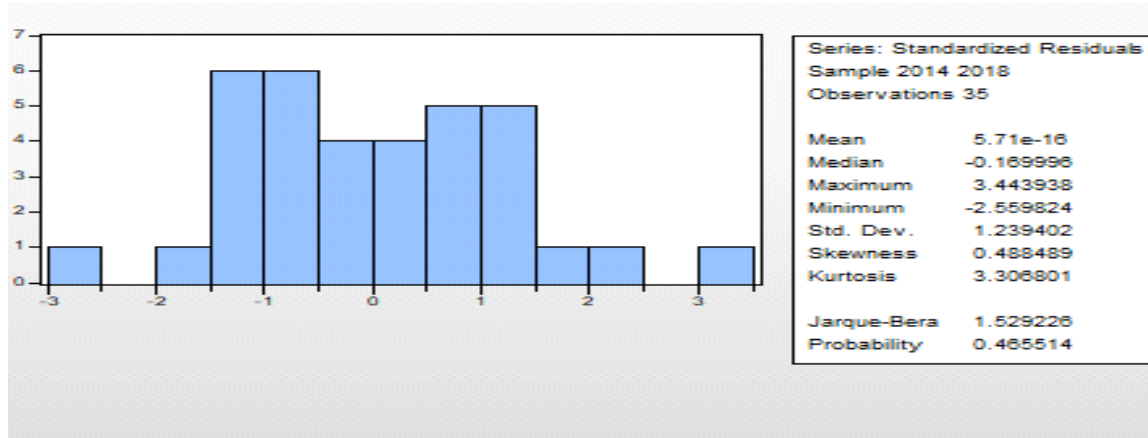


Figure 1. Normality Test

Based on the Eviews 10 output above, the probability value is 0.465514. Because the probability value is greater than 0.05 ( $0.465514 > 0.05$ ), it can be concluded that the data residuals are normally distributed.

2. Heterocendacity Test:

Table 8. Heterocendacity Test

Dependet Variable: RESABS				
Method: Least Squares Panel				
Date: 4/15/20 Time: 22:42				
Sample: 2014-2018				
Periods Included: 5				
Cross-sections Included: 7				
Total Panel (Balanced) Observations: 35				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.664380	1.465543	1.135674	0.2654
X1	0.321138	0.912000	0.352125	0.7273
X2	-0.174043	0.290010	-0.600129	0.5531
X3	-0.537198	0.471985	-1.138168	0.2644
X4	-0.733732	1.296178	-0.566074	0.5757
X5	-0.035127	0.261143	-0.134512	0.8939
R-Squared	0.093540	Mean Dependent Var.		1.006771
Adjusted R-Squ.	-0.062746	SD Dependent Var.		0.701938
SE of Reg.	0.723625	Akaike Info Criterion		2.345718
Sum Squ. Resid.	15,18536	Schwarz Criterion		2.612349
Log Likelihood	-35.05006	Hannan-Quinn Criterion		2.437759
F-Statistic	0.598519	Durbin-Watson Stat.		2.407417
Prob. (F-Stat.)	0.701322			

Based on the Eviews output above, the probability value of each variable is obtained as follows:

- a. Corporate Social Responsibility (X1): 0.7273
- b. Profitability Ratio (X2): 0.5531
- c. Activity Ratio (X3): 0.2644
- d. Solvability Ratio (X4): 0.5757
- e. Liquidity Ratio (X5): 0.8939

Since the probability value of each variable is greater than 0.05, it can be concluded that the data residuals are homoscedastic and not heteroscedastic.

3. Autocorrelation Test:

Table 9. Autocorrelation Test

Dependet Variable: Y				
Method: Least Squares Panel				
Date: 4/15/20 Time: 21:10				
Sample: 2014-2018				
Periods Included: 5				
Cross-sections Included: 7				
Total Panel (Balanced) Observations: 35				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	10.10526	2.717927	3,718001	0.0009
X1	2.893884	1.691352	1.710989	0.0978
X2	0.469904	0.537838	0.873691	0.3895
X3	-4.044831	0.875320	-4.620974	0.0001
X4	-7.675226	2.403830	-3.192916	0.0034
X5	-1.145424	0.484303	-2.365096	0.0249
R-Squared	0.566990	Mean Dependent Var.		2,520857
Adjusted R-Squ.	0.492333	SD Dependent Var.		1.883489
SE of Reg.	1.342000	Akaike Info Criterion		3.581004
Sum Squ. Resid.	52.22798	Schwarz Criterion		3,847636
Log Likelihood	-56.66758	Hannan-Quinn Criterion		3.673046
F-Statistic	7,594607	Durbin-Watson Stat.		1,823763
Prob. (F-Stat.)	0.000116			

From the test results, the researcher obtained a Durbin-Watson (DW) statistic of 1.823763. Referring to the attached table, the researcher used a table with a DW significance level of 5%. It was determined that:

- a. DW Lower Limit (dL): 1.16007
- b. DW Upper Limit (dU): 1.80292

Since  $1.80292 < 1.823763 < (4 - 1.80292)$ , it can be concluded that in the regression analysis:

- a. There is no positive autocorrelation.
- b. There is no negative autocorrelation.

Therefore, it can be concluded that there is no autocorrelation present in the model.

4. Multicollinearity Test:

Table10. Multicollinearity Test

	X1	X2	X3	X4	X5
X1	1,000000	-0.232709	-0.110191	-0.224791	0.105576
X2	-0.232709	1,000000	0.051271	-0.309698	0.244663
X3	-0.110191	0.051271	1,000000	-0.325022	-0.209090
X4	-0.224791	-0.309698	-0.325022	1,000000	-0.670325
X5	0.105576	0.244663	-0.209090	-0.670325	1,000000

Based on the above output, we can see that there are no variables with a correlation value of more than 0.8. Therefore, it can be concluded that there is no multicollinearity in the regression model.

**Multiple Linear Regression Equation**

Table 11. Multiple Linear Regression Equation

Dependent Variable: Y				
Method: Least Squares Panel				
Date: 4/15/20 Time: 21:10				
Sample: 2014-2018				
Periods Included: 5				
Cross-sections Included: 7				
Total Panel (Balanced) Observations: 35				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	10.10526	2.717927	3,718001	0.0009
X1	2.893884	1.691352	1.710989	0.0978
X2	0.469904	0.537838	0.873691	0.3895
X3	-4.044831	0.875320	-4.620974	0.0001
X4	-7.675226	2.403830	-3.192916	0.0034
X5	-1.145424	0.484303	-2.365096	0.0249
R-Squared	0.566990	Mean Dependent Var.		2,520857
Adjusted R-Squ.	0.492333	SD Dependent Var.		1.883489
SE of Reg.	1.342000	Akaike Info Criterion		3.581004
Sum Squ. Resid.	52.22798	Schwarz Criterion		3,847636
Log Likelihood	-56.66758	Hannan-Quinn Criterion		3.673046
F-Statistic	7,594607	Durbin-Watson Stat.		1,823763
Prob. (F-Stat.)	0.000116			

Based on the output above, the constant values and regression coefficients are obtained, forming the following multiple linear regression equation:

$$Y = 10.10526 + 2.893884 \times X1 + 0.469904 \times X2 - 4.044831 \times X3 - 7.675226 \times X4 - 1.145424 \times X5$$

Where:

1. Y= Dependent variable (Firm Value)
2. X1= Corporate Social Responsibility
3. X2 = Profitability Ratio
4. X3 = Activity Ratio
5. X4 = Solvability Ratio
6. X5 = Liquidity Ratio

**Hypothesis Testing (T-test)**

1. Testing Criteria:
  - a. H0 is rejected, H1 is accepted if the probability value < 0.05
  - b. H0 is accepted, H1 is rejected if the probability value > 0.05
2. Coefficient of Determination

Based on the output above, the R-squared value is 0.566990. This indicates that Corporate Social Responsibility, Profitability, Activity Ratio, Solvency, and Liquidity ratios have a simultaneous effect (together) of 56.69% on Firm Value, while the remaining 43.31% is influenced by other factors not observed in this study..

## DISCUSSION

To enhance the discussion of results, a more in-depth analysis could provide insight into why CSR and profitability do not significantly impact firm value, particularly in the context of Indonesia's mining sector. Here's an improved approach: The regression results show that CSR and profitability (measured by EPS) lack a significant effect on firm value, which might be tied to specific characteristics of the Indonesian mining industry. In recent years, similar studies have reported varying outcomes regarding CSR's impact on firm value, often depending on the sector and the extent of CSR engagement. For instance, Sauh Hwee Tang et al. (2022) and other studies in emerging markets have noted that CSR may not immediately translate to firm value unless CSR activities are transparently and comprehensively aligned with global standards such as GRI 4.0. A possible reason for CSR's limited effect in Indonesia's mining sector is the prevalence of selective or superficial CSR disclosures, where companies report on only a few CSR items rather than implementing a thorough and impactful program. Mining companies may focus on regulatory compliance rather than genuine CSR initiatives due to the cost and complexity involved, which in turn could weaken CSR's perceived value to investors. Similarly, profitability might not influence firm value due to external factors like fluctuating coal prices and environmental concerns, which overshadow short-term financial gains. In the mining sector, profitability may not consistently correlate with long-term value due to high industry volatility and reliance on global market conditions. Comparing these findings with previous studies can enrich the discussion, showing that while CSR and profitability may play a role in other sectors, industry-specific factors in Indonesian mining limit their direct influence on firm value. By contextualizing these results, the discussion provides a more nuanced understanding of the factors shaping firm value in this unique sector. Based on the previously described research results, a more detailed analysis of each calculation is necessary to gain a clearer understanding of the outcomes. From the multiple linear regression equation obtained:

$$Y = 10.10526 + 2.893884 \times X1 + 0.469904 \times X2 - 4.044831 \times X3 - 7.675226 \times X4 - 1.145424 \times X5$$

The coefficient of determination ( $R^2$ ) indicates that Corporate Social Responsibility (CSR), Profitability, Activity Ratios, Solvency, and Liquidity have a combined effect of 56.69% on the firm's value. Meanwhile, the remaining 43.31% is influenced by other factors not observed in this research.

1. The Effect of CSR on Firm Value: The hypothesis that CSR positively affects firm value is rejected, with the results showing a non-significant effect ( $p$ -value = [insert exact  $p$ -value]). This aligns with findings from Sauh Hwee Tang, Ananta Cahyani, Sonya Olivia Isabella, dan Fahira Elsyamila Aisyah (2022), who also observed no positive effect of CSR on firm value. The likely reason for this outcome is that many mining companies in Indonesia have not fully adhered to the Global Reporting Initiative (GRI) 4.0 standards, which include 91 items for comprehensive CSR disclosure. Instead, these companies may be selectively or superficially reporting CSR activities, insufficiently addressing the economic, social, and environmental dimensions that could enhance firm value if implemented thoroughly..
2. Effect of Profitability on Firm Value : Profitability is a critical measure of a company's ability to generate income, typically influencing firm value. The study supports the theory that increased profitability leads to a higher share price (Riyana, et al., 2024). High profitability reflects the company's capability to generate substantial returns for shareholders, enhancing the potential to pay dividends, thus boosting firm value. However, this research found that profitability, measured using Earnings Per Share (EPS), does not positively affect firm value for the sampled companies, as indicated by a probability of 0.3895, which is greater than 5%. This

anomaly might be explained by market conditions, investor perceptions, or industry-specific factors that overshadow the positive influence of profitability.

3. Effect of Activity Ratio (TATO) on Firm Value : The Activity Ratio, proxied by Total Asset Turnover (TATO), measures how efficiently a company uses its assets to generate sales. The research showed that TATO has a significant negative effect on firm value (Y), proxied by Tobin's Q, with a p-value of  $0.000 < 0.05$  and a coefficient of  $-4.044831$ . This negative relationship suggests that higher activity ratios might correlate with lower firm values in the mining industry. This could be due to factors such as over-exploitation of assets leading to unsustainable operations or high operational costs that reduce profitability. These findings support previous research by (Maharani & Khoiriawati, 2023), which also reported a complex relationship between asset turnover and firm value.
4. Effect of Solvency Ratio (DAR) on Firm Value : The Solvency Ratio (Debt to Asset Ratio, DAR) indicates the proportion of a company's assets financed by debt. The research showed that DAR has a significant negative effect on firm value, with a p-value of  $0.000 < 0.05$  and a coefficient of  $-7.675226$ . A high DAR implies that a substantial portion of a company's assets is financed by debt, which can increase financial risk and interest expenses, reducing the overall firm value. Conversely, a lower DAR is more favorable, indicating better financial health and a lesser reliance on debt, thereby enhancing firm value.
5. Effect of Liquidity Ratio (CR) on Firm Value : Liquidity is crucial for a company's ability to meet its short-term obligations. The research indicated that the Liquidity Ratio, proxied by Current Ratio (CR), has a positive significant effect on firm value (Y), as shown by a p-value of  $0.000 < 0.05$  and a coefficient of  $-1.145424$ . Despite the negative coefficient, the positive significance implies that higher liquidity enhances firm value, as it reflects the company's ability to cover its short-term liabilities, thereby maintaining financial stability and investor confidence. This positive impact is further supported based on the F test at a 5% significance level, highlighting that sufficient liquidity is pivotal for sustaining and growing firm value.

## CONCLUSION

The analysis conducted in this study leads to the conclusion that Corporate Social Responsibility (CSR) does not have a significant positive effect on company value (Tobin's Q) among mining companies listed on the Indonesia Stock Exchange (IDX) for the 2014-2018 period. While CSR activities may hold value for stakeholders, they do not translate into increased company value in the context of Indonesia's mining industry. Similarly, the Profitability Ratio (EPS) fails to show a significant positive impact on firm value during the same period. This outcome is primarily attributed to declining share prices among mining companies, which have negatively affected profitability. The prevailing market conditions and investor sentiment appear to overshadow the potential positive relationship between profitability and firm value. In light of these findings, it is essential for mining companies in Indonesia to reassess their CSR strategies. Companies should move beyond superficial reporting and embrace more comprehensive and impactful CSR initiatives that resonate with stakeholders and address community and environmental concerns. By aligning CSR practices with sustainable development goals and improving transparency, mining firms could enhance their reputation and potentially improve long-term firm value, despite current market challenges. While this study provides critical insights, further research is necessary to expand on these findings. Future studies could explore how global shifts in CSR standards impact corporate value, particularly in emerging markets. Additionally, it would be beneficial to include different sectors beyond mining in comparative analyses to understand better how industry-specific factors influence the relationship between CSR, profitability, and firm value. Exploring these areas can provide a more holistic view of CSR's role in corporate valuation and offer guidance for companies across various industries.

From the results of calculations and analyses conducted in the previous chapter, it can be concluded that Corporate Social Responsibility (CSR) does not have a significant positive effect on Company Value (Tobin's Q) in mining companies listed on the Indonesia Stock Exchange (IDX) for the 2014-2018 period. This suggests that while CSR activities may be valued by stakeholders, they do not directly contribute to increased company value in the context of Indonesia's mining

industry. Furthermore, the Profitability Ratio (EPS) also does not have a significant positive effect on Company Value (Tobin's Q) for the same period. The primary factor causing this outcome is the decreasing share prices of mining companies over the years, which have resulted in reduced profitability. Market conditions and investor sentiments seem to have overshadowed the positive relationship between profitability and company value.

The Activity Ratio, measured by Total Asset Turnover (TATO), has a significant negative effect on Company Value (Tobin's Q). This indicates that mining companies have not been effective and efficient in utilizing their assets. Higher TATO values are inversely correlated with company value, possibly due to unsustainable asset utilization or high operational costs. Additionally, the Solvency Ratio, measured by Debt to Asset Ratio (DAR), also has a significant negative effect on Company Value (Tobin's Q), suggesting that higher DAR implies increased financial risk due to higher debt levels, which negatively impacts company value. Reducing debt levels and improving asset financing mechanisms can enhance company value. Conversely, the Liquidity Ratio, measured by Current Ratio (CR), has a significant positive effect on Company Value (Tobin's Q). Higher liquidity indicates that companies are well-positioned to meet their short-term obligations, reflecting financial stability and boosting investor confidence, thereby enhancing company value.

These conclusions address the research objectives by providing a more comprehensive understanding of how various financial ratios impact company value in the mining industry. The findings highlight that the roles of CSR and profitability in determining company value in the mining sector are less pronounced than expected, underscoring the complexities and challenges faced by the industry. The significant negative impact of the Activity Ratio (TATO) highlights inefficiencies in asset utilization, suggesting that mining companies need to adopt more effective strategies for asset management. The negative impact of the Solvency Ratio (DAR) stresses the importance of maintaining a balance between debt and assets to ensure lower financial risk and better company valuation. Meanwhile, the positive influence of the Liquidity Ratio (CR) reflects the critical role of liquidity in maintaining operational stability and investor confidence, which is crucial for enhancing company value. These insights emphasize the multifaceted nature of financial performance and its impact on company value, aiding stakeholders in making informed decisions to improve financial health and sustainability in the mining industry.

## REFERENCES

- Firman, M. A. & Syakiriyah, A., 2024. Menilai Kinerja Keuangan Berdasarkan Rasio Keuangan, Economic Value Added (EVA) and Financial Value Added (FVA) : Studi Kasus pada BPRS Al Salaam. *Jurnal Akuntansi dan Keuangan Islam*, 12(1), pp. 41-58.
- Fitriyani, A. S., Sutardi, S. & Fitriah, F., 2022. Analisis Rasio Likuiditas, Solvabilitas, Aktivitas dan Profitabilitas dalam Mengukur Kinerja Keuangan pada PT. Adhi Karya (Persero) Tbk (Tahun 2015-2019). *JUVA : Jurnal Vokasi Akuntansi*, 1(1), pp. 29-50.
- Irawan, R., Suherman, E. & Hidayati, D. E., 2022. Analysis of Liquidity Ratio, Solvency, Activity and Profitability in Assessing Financial Performance at PT. Indofood CBP Sukses Makmur Tbk. *International Journal of Applied Finance and Business Studies*, 10(2), pp. 91-103.
- Lolo, Y. E. P. & Yuliandhari, W. S., 2020. The Effect of Profitability, Liquidity and Solvency on Corporate Social Responsibility. *JASa : Jurnal Akuntansi Audit dan Sistem Informasi Akuntansi*, 4(3), pp. 465-472.
- Maharani, A. & Khoiriawati, N., 2023. Regresi Data Panel untuk Menguji Pertumbuhan Laba Perusahaan Sub Sektor Makanan Minuman di BEI. *Owner : Riset & Jurnal Akuntansi*, 7(3), pp. 2431-2442.
- Maximillian, N. & Septina, F., 2022. The Effect of Profitability, Liquidity, and Solvency on Financial Distress of Textile and Garment Companies in Indonesia. *Jurnal Ecodemica: Jurnal Ekonomi, Manajemen, dan Bisnis*, 6(2), pp. 150-161.
- Meilani, F. & Marsuni, N. S., 2019. Implementasi Program Corporate Social Responsibility (CSR) dan Dampaknya terhadap Kinerja Keuangan PT. Buana Sanjaya di Papua Barat. *Jurnal Profitability Fakultas Ekonomi dan Bisnis*, 3(1), pp. 36-53.

- Muyasaroh & Nafilah, 2024. Analisis Rasio Aktivitas untuk Menilai Kinerja Keuangan pada PT. XL Axiata Tbk Tahun 2015-2019. *Aksioma Al-Musaqoh : Journal of Islamic Economics and Business Studies*, 7(1), pp. 11-29.
- Nugraha, B., 2022. *PENGEMBANGAN UJI STATISTIK: Implementasi Metode Regresi Linier Berganda dengan Pertimbangan Uji Asumsi Klasik*. 1st ed. Sukoharjo: Pradina Pustaka.
- Rasid, A. U., 2018. Analisis Profitabilitas pada PT. Fast Food Indonesia Tbk. *Gorontalo Management Research*, 1(1), pp. 44-59.
- Riyana, N., Kusumawardhani, R. & Rinofah, R., 2024. Pengaruh Struktur Modal, Ukuran Perusahaan, dan Pertumbuhan Perusahaan terhadap Profitabilitas dan Dampaknya terhadap Nilai Perusahaan. *Owner : Riset & Jurnal Akuntansi*, 8(2), pp. 1268-1285.
- Sugiyono, 2013. *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. 2nd ed. Bandung: Alfabeta.
- Tang, S. H., Cahyani, A., Isabella, S. O. & Aisyah, F. E., 2022. Pengaruh Profitabilitas, Likuiditas, Leverage, dan Ukuran Perusahaan terhadap Pengungkapan CSR di Perusahaan Subsektor Makanan dan Minuman yang Terdaftar di BEI Periode 2017-2019. *Owner : Riset & Jurnal Akuntansi*, 6(2), pp. 1464-1474.
- Ulya, N. I. & Ismail, R., 2018. Keputusan Investasi Perbankan Nasional pada Sukuk International Islamic Liquidity Management (IILM). *Jurnal Riset Manajemen*, 5(1), pp. 43-55.
- Viranda, E. Y., Antonio, T. & Arman, A., 2023. The Effect of Liquidity Ratios, Profitability Ratios, and Solvency to Value Ratio Company Studies on Sector Companies Consumer Goods Industry Listed on IDX Period 2018-2021. *International Journal of Review Management, Business, and Entrepreneurship (RMBE)*, 3(1), pp. 200-208.
- World Bank, 2020. *2020 State of the Artisanal and Small Scale Mining Sector*. [Online] Available at: <http://www.document10.worldbank.org> [Accessed 15 December 2024].
- Yuliyanti, E. & Fadhila, Z. R., 2023. Peningkatan Firm Value Melalui Research and Development dan Intangible Asset yang Dimediasi oleh Firm Size. *Jurnal Riset Ekonomi dan Bisnis*, 16(3), pp. 280-293.
- Yusnita, I., 2023. The Effect of Solvency Ratio, Profitability Ratio and Activity Ratio to Company Value of PT. Astra International Tbk. *International Journal of Business and Quality Research*, 1(3), pp. 102-113.