



Valuation Analysis of Joint Venture Value through Acquisition Process: Case Study of PT Pelat Timah Nusantara by PT Bumi Resources Mineral

Rayuli Wulandari¹, Ahmad Syawaldi², Jerry Heikal³

^{1,2,3,4} Bakrie Universities, Indonesia

Email: jerry.heikal@bakrie.ac.id

Abstrak– Studi ini bertujuan untuk menghitung nilai harga penawaran perusahaan gabungan melalui akuisisi antara PT Bumi Resources Mineral Tbk dan PT Pelat Timah Nusantara Tbk menggunakan model penilaian dan strukturisasi M&A. Model penilaian mencakup analisis arus kas yang didiskontokan (DCF), perbandingan perusahaan sejenis, dan metode nilai pasar. Strukturisasi M&A mencakup pengaturan keuangan, pertimbangan hukum, dan strategi integrasi untuk menggabungkan operasi kedua perusahaan. Akuisisi dilakukan dengan harga penawaran IDR 115,56 per saham. Nilai ekuitas perusahaan target adalah 2,87 T dengan nilai per saham 1140,79, sementara nilai ekuitas perusahaan pengakuisisi adalah 4,21 T dengan nilai per saham 29,76. Setelah akuisisi, nilai ekuitas perusahaan baru adalah 22,8 T dengan nilai per saham 115,56. Temuan menunjukkan bahwa penawaran perusahaan baru dapat dianggap undervalued karena nilai ekuitas per saham lebih rendah dibandingkan sebelum akuisisi, menunjukkan potensi nilai yang belum terealisasi jika harga penawaran per saham di bawah nilai ekuitas per saham sebelum akuisisi..

Kata Kunci: Akuisisi, Merger, Manajemen dan Valuasi, Pengakuisisi

Abstract– The study aims to calculate the bid price of the combined company through the acquisition between PT Bumi Resources Mineral Tbk and PT Pelat Timah Nusantara Tbk using M&A valuation and structuring models. The valuation model includes discounted cash flow (DCF) analysis, comparable company analysis, and market value methods. M&A structuring involves financial arrangements, legal considerations, and integration strategies to merge the operations of both companies. The acquisition was made at a bid price of IDR 115.56 per share. The equity value of the target company was 2.87 T with a per-share value of 1140.79, while the equity value of the acquiring company was 4.21 T with a per-share value of 29.76. After the acquisition, the new company's equity value is 22.8 T with a per-share value of 115.56. Findings indicate that the bid of the new company may be considered undervalued because the per-share equity value is lower compared to pre-acquisition, suggesting unrealized potential value if the bid price per share is below the pre-acquisition equity value per share.

Keywords: Acquisition, Merger, M&A Valuation and Structuring, Acquirer

I. INTRODUCTION

PT Bumi Resources Minerals Tbk, through its subsidiaries, is engaged in the exploration and development of mineral properties in Asia. The company operates through three segments: Investments, Holding Company, and Mining and Services [1]. The company explores for lead, zinc, gold, copper, and iron ore. It also invests in shares, engages in funding and financing activities; and offers mining and marketing advisory services. The company was founded in 2003 and is headquartered in Jakarta, Indonesia.

In the first half of 2023, PT Bumi Resources Minerals Tbk (BRMS) reported a 46% increase in profit for the year. Referring to the interim financial report as of June 2023, the current period profit of this mining issuer was recorded at US\$5.56 million or around Rp83.49 billion. In 2022, the company posted a net profit of US\$3.81 million [2]

In terms of top line, the company posted revenue of US\$ 15.83 million or Rp 237.80 billion. This figure is 186% higher than in 2022, when it was \$5.53 million. Meanwhile, the cost of revenue also swelled by 65.22% to US\$ 6.93 million from US\$ 2.41 million. BRMS' revenue

was supported by gold sales by its subsidiary PT Bhumi Satu Inti amounting to US\$ 14.83 million, or 94% of its total semester revenue. While the rest was revenue from mining services. Bellridge Holdings Limited, amounting to US\$ 1 million. In addition, another BRMS subsidiary, PT Gorontalo Minerals also continues to work on exploration drilling in the Prospect area. So far, drilling has reached 14,786.50 meters of the latest total plan of 18,213.85 meters.

PT Pelat Timah Nusantara Tbk operates as a tin plate manufacturer in Indonesia. The company offers tinplate products in rolls and sheets. The company also exports its products to the international market. The company was founded in 1982 and is headquartered in Jakarta, Indonesia. At the Annual General Meeting of Shareholders (AGMS) of PT Pelat Timah Nusantara Tbk, it was decided not to distribute dividends for the fiscal year 2022, in order to strengthen the financial structure. As much as USD3.1 million, or 42 percent of the net profit in 2022, as a mandatory reserve in accordance with the provisions of the Limited Liability Company Law. The remaining USD4.13 million or 58 percent of net profit, will be placed as

retained earnings. In this position, with this condition, the company recorded a very large bank debt worth USD95 million.[3]

From the results of the previous journal, namely "Analysis of Company Acquisition Target Selection Using Financial Performance Segmentation Methodology: A Case Study of Diversified Metals & Minerals industry" the results show that based on financial performance indicators such as Net Profit Margin (NPM), Return on Equity (ROE), and Debt-to-Equity Ratio (DER) analyzed using K-Means Clustering that there are three companies that have decreased financial performance and can become acquisition targets. As for the results of the analysis, there are four companies in the diversified metals and minerals industry that have increased financial performance, namely PT Aneka Tambang, PT Central Omega Resources, PT Ifishdeco, and PT Timah. And there are 3 companies that are stable in their financial performance, namely PT Bumi Resources Minerals, PT Vale Indonesia, PT PAM Minerals, and PT Trinitan Metals and Minerals. While there are 3 companies that have decreased, namely, PT Pelat Timah Nusantara Tbk, PT Trinitan Metals and Minerals Tbk, and PT Kapuas Prima Coal Tbk.[4]

From this data, the author chose PT Bumi Resources Minerals to acquire PT Pelat Timah Nusantara, which has experienced a decline in financial performance for three years. PT Bumi Resources Minerals is one of the three stable companies showing consistency in the Cluster A (excellent) category from 2021 to 2022 in its financial performance in the Diversified Metals & Minerals industry. With acquisitions, companies can quickly master the market in a particular business field without starting a business from scratch. In addition, acquisitions also save time and money. Therefore, an acquisition is the activity of taking over the ownership of a company from another company by buying part or all of the company's shares.

Some of the objectives of making acquisitions are to seek wider business opportunities, improve synergies and company performance, reduce costs, gain a larger share of shares, and update strategies so that the business can grow.

With acquisitions, companies can also expand their businesses.[5] This is because the acquisition strategy has benefits for business development.[6] If the business grows, then business expansion can be launched easily. Companies that make acquisitions will get information about new technologies that may encourage their own companies to be more efficient. In addition, companies that make acquisitions will add new customers to the acquired company.[7]

By making an acquisition of PT Pelat Timah Nusantara, it is hoped that PT Bumi Resources Minerals can take over and overcome the problems that PT Pelat Timah Nusantara may experience so that it can help improve and improve the company's financial performance and seek wider business opportunities, improve synergies and company performance, reduce costs, gain a larger share of shares, and update strategies so that the business can grow. The purpose of this research is to determine the

fair market value of the combined company of PT Bumi Resources Mineral by acquiring PT Pelat Timah Nusantara using the M&A Valuation & Structuring Model.

II. METHODOLOGY

This research uses the M&A Valuation and Structuring Model approach. This method is similar to the discounted cash flow method, which focuses on the future of the company. This method makes financial projections for a long period of time as a result of synergies between two companies undergoing mergers and acquisitions. The concept of this approach is based on the "premise" that a person (an investor) buys or owns an asset not because he just wants to have it but because he expects the results or return that the asset will produce in the future. In this study, we will determine and predict the combined value of the company after the company merges or makes an acquisition using the M&A Valuation and Structuring Model approach, which is a comprehensive framework that combines various valuation techniques and considers the strategic aspects of the acquisition. This model not only takes into account the financial performance of the companies involved but also the synergies and potential risks associated with the transaction.

The model incorporates several factors, such as market conditions, industry trends, regulatory environment, competitive landscape, and potential cost savings from mergers. By analyzing these factors, the M&A Valuation & Structuring Model provides a comprehensive view of the acquisition and helps determine the optimal offer price.[8]

To obtain data for this study, it was taken from the Trading View Web and the IDX Web, which provide historical stock data. The web provides researchers with access to important fundamental data from listed companies. This data includes financial statements, annual reports, and other disclosures required by the exchange. Fundamental analysis involves examining a company's financial health, evaluating its assets and liabilities, and assessing its overall performance. With the help of Web Trading View and Web IDX, it is possible to access these fundamental data points and conduct in-depth analysis to understand the financial condition of companies listed in the Indonesian stock market.

A key driver behind M&A transactions is potential synergies. Synergies arise when the merged entity can achieve cost savings, revenue enhancements, or operational efficiencies that are difficult to obtain independently.[9] These synergies can have a significant impact on the valuation of the merged company.

III. RESULT AND DISCUSSION

Target and acquirer assumptions refer to the projected financial statements for both parties involved in the acquisition. Specifically, these assumptions include the income statement, balance sheet, and cash flow. These assumptions help in analyzing the financial aspects of the acquisition process, which can be seen in Table 1.

Table 1. Target Assumption

	Actual			Projections for the Period Ending December 31,				
	2020	2021	2022	2023	2024	2025	2026	2027
Income Statement								
Sales Growth	NA	43.3%	25.9%	35.0%	35.0%	35.0%	35.0%	35.0%
COGS as a % of Sales	91.9%	89.7%	91.6%	55.0%	55.0%	55.0%	55.0%	55.0%
SG&A % annual increase (decrease)	NA	14.7%	(15.2%)	15.0%	15.0%	15.0%	15.0%	15.0%
Other Operating Expense as a % of Sales	-	-	-	11.0%	11.0%	11.0%	11.0%	11.0%
EBITDA Growth	NA	(0.9%)	(24.4%)	(233.3%)	62.2%	54.3%	49.4%	46.1%
EBITDA Margin	(35.1%)	(24.3%)	(14.6%)	14.4%	17.3%	19.8%	21.9%	23.7%
Balance Sheet								
Receivable Days	1,377.6	145.7	139.5	64.0	84.0	84.0	84.0	84.0
Inventory Days	727.0	877.7	788.7	47.0	47.0	47.0	47.0	47.0
Other Current Assets % of Sales	5.1%	7.5%	4.1%	5.5%	5.5%	5.5%	5.5%	5.5%
Accounts Payable Days	612.9	1,069.8	580.8	45.0	45.0	45.0	45.0	45.0
Other Current Liabilities % of COGS	417.8%	395.6%	444.2%	25.0%	25.0%	25.0%	25.0%	25.0%
Working Capital/Sales (Excl Cash & Debt)	27.3%	(355.3%)	(312.2%)	15.1%	15.1%	15.1%	15.1%	15.1%
Cash Flow								
Capital Expenditures	(8.6)	(31.8)	(13.6)	2.0	2.8	3.7	5.0	6.8
Capex as a % of Sales	(4.1%)	(10.6%)	(3.6%)	0.4%	0.4%	0.4%	0.4%	0.4%
Depreciation	40.7	40.6	38.2	5.1	6.9	9.3	12.6	17.0
Depreciation as a % of Sales	19.4%	13.5%	10.1%	1.0%	1.0%	1.0%	1.0%	1.0%
Goodwill Amortization (Pre-6/2001)	-	-	-	-	-	-	-	-
Amortization of Intangibles	-	-	-	-	-	-	-	-
Retirement of Senior Debt	-	-	-	-	-	-	-	-
Retirement of Subordinated Debt	-	-	-	-	-	-	-	-
Chg in Deferred Taxes - Asset	NA	0.1	1.1	-	-	-	-	-
Chg in Deferred Taxes - Liab	NA	(2.2)	-	-	-	-	-	-
Dividend from Affiliates	-	-	-	-	-	-	-	-
Payout Ratio of Affiliates	-	-	-	-	-	-	-	-
Dividends per Share	-	-	-	-	-	-	-	-
Dividend Payout Ratio	-	-	-	-	-	-	-	-
Dividends Paid	-	-	-	-	-	-	-	-
Effective Tax Rate	(13.3%)	(10.8%)	(18.8%)	20.0%	20.0%	20.0%	20.0%	20.0%
Other								
Shares Outstanding - Basic	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Shares Outstanding - Diluted	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Revolving Credit Facility Rate	-	-	-	-	-	-	-	-
Senior Debt Rate	-	-	-	-	-	-	-	-
Subordinated Debt	-	-	-	-	-	-	-	-
Average Interest Rate	NA	422.47%	1,155.42%	-	-	-	-	-
Marketable Securities Rate	-	-	-	-	-	-	-	-

From the assumptions of the target and acquirer projections, the results of the estimated value of the new company, by projecting the combined financial statements of the two companies, namely PT Bumi Resources Minerals and PT Pelat Timah Nusantara and including the synergies therein can be seen in Table.2. This table presents the projected financial statements of the merged company, including the income statement, balance sheet, and cash flow statement. These projections are based on a comprehensive analysis of each company's financials, market trends, and potential synergies.

It can be seen that the sales growth rate shows an increase in expected revenue from year to year. In 2021 and 2022, it amounted to 24.6% and 14.4%, respectively and is projected to continue increasing for the next 5 years. This shows a positive trend in the company's ability to generate higher sales.

In 2020, COGS as a percentage of sales was 28.1%. This shows that the company efficiently managed its production costs and generated a healthy gross profit margin. However, the situation changed in 2021, where COGS as a percentage of sales increased significantly to 41.4%. This drastic increase indicates that the company is facing challenges in controlling its production costs. This could be due to various factors such as rising raw material prices, higher labor costs, or inefficient production processes. In 2022, when COGS as a percentage of sales is projected at 37.6%, this indicates that the company has made some improvements in managing its production costs. While still higher than the 2020 level, the decrease from the previous year indicates progress in optimizing the cost structure. Analyzing COGS as a percentage of sales is critical for investors and stakeholders as it provides insight into the company's ability to control costs and generate profits. A high COGS as a percentage of sales can negatively impact a company's bottom line, as it indicates inefficient operations and lower profit margins.

EBITDA growth is an important indicator of a company's financial performance and its ability to generate operating profit. In 2021, the projected growth rate reached 341.2%. This implies a significant increase in the company's operating income compared to the previous year. Such exponential growth could be due to various factors, including increased sales, cost-cutting measures, or the successful implementation of new business strategies. However, in 2022, the projected growth rate is a negative - 2.6%. This indicates a potential decline in the company's operating income compared to the previous year. A negative growth rate may indicate challenges faced by the company, such as increased competition.

Inventory days are a financial metric that measures the average number of days it takes a company to convert its inventory into sales. Lower inventory days indicate that the company is efficient in managing its inventory and has a faster turnover. From the table, it can be seen that inventory days are expected to decrease over the forecast period. This implies that the merged company becomes more efficient in managing its inventory, resulting in faster turnover and potentially higher profitability. The decrease in inventory days can be due to several factors, such as better inventory management systems, better demand forecasting, and more efficient supply chain processes. These improvements can reduce storage costs, minimize the risk of obsolescence, and increase customer satisfaction due to faster order fulfillment.

The percentage of other current assets to sales is a measure of the proportion of a company's current assets, excluding inventories, in relation to its sales revenue. This metric provides insight into how companies manage working capital and invest in other short-term assets. The data shows significant fluctuations in the percentage of other current assets to sales. Initially, in 2020, the percentage was relatively high, suggesting that the merged company had a substantial proportion of its current assets invested in other short-term assets. This could be due to various reasons, such as strategic investments, acquisitions, or temporary cash management decisions. However, starting in 2021, the percentage increases significantly, peaking in 2022. This spike indicates that the merging company allocates a larger portion of its working capital to other current assets, which could include investments in securities, short-term loans, or other liquid assets. In the following years, the percentage gradually decreases, indicating a potential shift in the company's investment strategy or a reduced need for other current assets.

Days in accounts payable is a financial metric that measures the average number of days it takes a company to pay suppliers or vendors. A higher number of days in accounts payable indicates that the company is taking longer to settle its obligations, which can have implications on cash flow and relationships with suppliers. From the data, one can observe a gradual decrease in the number of days in accounts payable over the forecast period. This suggests that merged companies are becoming more

efficient in managing debt and settling outstanding obligations in a timely manner. A decrease in the number of days in accounts payable can be beneficial for the company as it indicates better cash flow management. By paying suppliers on time, companies can maintain strong relationships with vendors, negotiate favorable terms, and potentially benefit from early payment discounts.

Capital expenditure (CapEx) plays an important role in the growth and expansion of any company.[10] Capex represents funds allocated to acquire or upgrade physical assets, such as property, equipment, or technology.[11] By investing in these assets, companies aim to increase production capabilities, improve efficiency, and drive revenue growth. In this case, it is clear that there is a significant increase in CapEx from 2020 to 2021, followed by a gradual decrease in the following years. This suggests that the merged entity plans to make substantial investments at an early stage to capitalize on growth opportunities and synergies.[12] To understand the impact of capital expenditure on sales, one can calculate capital expenditure as a percentage of sales.[13] In 2020, the capital expenditure to sales ratio stood at 26.8%. However, in 2021, this ratio skyrocketed to 2,189.0%, indicating a very high level of investment relative to sales.

Depreciation is a non-cash expense that reflects the reduction in value of an asset over time.[14] By including depreciation expense in financial statements, companies can accurately represent the true economic value of assets and calculate their net income.[15] In 2020, the depreciation-to-sales ratio was 9.9%, indicating that the merged company expects a relatively small impact of depreciation expense on its sales. However, this ratio increased to 13.0% in 2022, indicating that companies may be acquiring new assets or renewing existing assets, resulting in higher depreciation expenses.

Taxation is a significant factor that can affect a company's profitability and cash flow. The effective tax rate indicates the overall tax burden on a company's profits, taking into account various tax deductions, credits and exemptions. This suggests that the merging company may have implemented tax planning strategies or benefited from tax incentives, resulting in a lower effective tax burden. The marginal tax rate, which comes into effect when considering additional income, remains constant at 40.0% from 2023 to 2025. This indicates that any additional income generated by the merging company beyond a certain threshold will be subject to a flat tax rate of 40.0%.

Table 2. New Company Assumption

	Actual	2020	2021	2022	2023	2024	2025	2026	2027
Income Statement									
Sales Growth	NA	24.6%	14.4%	246.2%	37.6%	37.1%	28.9%	29.8%	
COGS as a % of Sales	28.1%	41.4%	37.6%	-	0.7%	0.7%	-	-	-
Integration Related Expenses (\$M)	-	-	100.0	-	-	-	-	-	-
SG&A as a % of Sales	NA	(17.1%)	8.8%	130.4%	14.6%	15.0%	12.6%	12.7%	
Other Operating Expense as a % of Sales	-	(13.2%)	(3.0%)	8.9%	8.6%	8.4%	8.7%	9.0%	
EBITDA Growth	NA	341.2%	(2.6%)	6,492.0%	36.6%	37.9%	34.4%	34.5%	
EBITDA Margin	8.3%	29.5%	25.2%	84.1%	85.1%	86.9%	87.2%	87.5%	
Balance Sheet									
Receivable Days	23.3	-	15.8	64.7	65.7	66.7	67.7	68.6	
Inventory Days	1,288.6	841.7	1,425.9	518.0	507.3	496.3	484.9	473.3	
On Current Assets % of Sales	413.5%	1,586.4%	1,358.7%	209.1%	186.3%	187.8%	177.7%	167.8%	
Days in Accounts Payable	834.3	799.3	844.2	107.5	103.5	99.7	96.1	92.7	
On Current Liabilities % of COGS	2,538.9%	1,700.0%	1,367.2%	177.3%	167.4%	158.2%	149.4%	141.2%	
Working Capital/Sales (Excl Cash & Debt)	(17.2%)	94.0%	70.4%	-	151.2%	143.9%	130.1%	123.6%	
Cash Flow									
Capital Expenditures	32.5	3,310.0	1,890.0	45.3	56.8	71.3	89.5	112.4	
Capex as a % of Sales	26.6%	2,189.0%	1,052.8%	6.0%	-	-	-	-	
Depreciation	12.0	12.4	22.5	18.5	23.7	30.3	38.8	49.7	
Depreciation as a % of Sales	9.9%	8.2%	13.0%	2.5%	-	-	-	-	
Goodwill Amortization (Pre-5/2001)	-	-	-	-	-	-	-	-	
Amortization of Intangibles	-	-	-	-	-	-	-	-	
Amortization of Deferred Financing Exp	-	-	-	19.1	19.1	19.1	19.1	19.1	
Chg in Deferred Taxes - Asset	NA	(709.7)	(263.0)	-	-	-	-	-	
Chg in Deferred Taxes - Liab	NA	-	-	-	-	-	-	-	
Dividend from Affiliates	-	-	-	-	-	-	-	-	
Payout Ratio of Affiliates	-	-	-	-	-	-	-	-	
Dividends per Share	Rp -	Rp -	Rp -	Rp -	Rp -	Rp -	Rp -	Rp -	
Dividend Payout Ratio	Rp -	Rp -	Rp -	Rp -	Rp -	Rp -	Rp -	Rp -	
Dividends Paid	Rp -	Rp -	Rp -	Rp -	Rp -	Rp -	Rp -	Rp -	
Effective Tax Rate	70.8%	42.5%	58.0%	26.0%	26.0%	26.0%	26.0%	26.0%	
Marginal Tax Rate	0.0%	0.0%	0.0%	40.0%	40.0%	40.0%	40.0%	40.0%	
Other									
Shares Outstanding - Basic	78.3	93.8	141.7	198.0	198.0	198.0	198.0	198.0	
Shares Outstanding - Diluted	78.3	93.8	141.7	198.0	193.5	193.5	193.5	193.5	
Revolving Credit Facility Rate	-	-	-	-	-	-	-	-	
Senior Debt Rate	-	-	-	5.50%	5.50%	5.50%	5.50%	5.50%	
Subordinated Debt	-	-	-	8.00%	8.00%	8.00%	8.00%	8.00%	
Average Interest Rate	NA	0.48%	0.14%	4.98%	4.98%	4.98%	4.98%	4.98%	

The valuation of a merger or acquisition is an important step in determining the suitability of the offer price and post-transaction capital structure. It involves analyzing the financial performance and projections of the target and acquirer companies, as well as identifying potential synergies that may arise from the merger. This study discusses the valuation analysis and financial projections of the newco, the newly formed company from the merger, based on available and calculated data. The individual valuations of the target company, the acquirer, and the newco can be seen in Table.3, Table.4 and Table.5.

After assessing the individual valuations of the target and acquirer companies, it is possible to determine the valuation of the newco. The data presented shows that the equity value of the newco is 22,882.6 M Rupiah. This value is the estimated combined equity value of the target and acquirer companies after the merger. The Equity Value Per Share for Newco is 115.56 IDR.

Table.3 Valuation of Target Company

Target	2022	2023	2024	2025	2026
Free Cash Flow	68.5	112.6	175.1	262.9	385.4
EBIT	(13.7)	(22.5)	(35.0)	(52.6)	(77.1)
Less: Taxes	5.1	6.9	9.3	12.6	17.0
Plus: Deprec. & Amort..	(2.0)	(2.8)	(3.7)	(5.0)	(6.8)
Less: Gross Capex	223.3	(41.8)	(56.4)	(76.1)	(102.7)
Less: Δ NWC	281.2	52.5	89.3	141.7	215.8
Equals: Free Cash Flow	1.00	1.00	1.00	1.00	1.00
Period	0.50	1.50	2.50	3.50	4.50
Mid-Year Convention	0.94	0.82	0.72	0.63	0.55
Discount Factor	Rp 263.20	Rp 43.00	Rp 64.10	Rp 89.14	Rp 118.85
PV FCF	578.3	1,912.7	2,491.0	385.2	2.9
PV (Years 1- 5)	2,873.3	1,140.19	14.2%	30.0%	23.1%
PV (Terminal Value)	2,491.0	2.9	40.0%	8.9%	6.3%
Enterprise Value	2,873.3	1,140.19	2.2%	1.19	Terminal Value
Plus Cash	2,873.3	1,140.19	215.8	3.0%	9.4%
Less Debt & Min. Int.	2,873.3	1,140.19	215.8	3.0%	9.4%
Equity Value	2,873.3	1,140.19	215.8	3.0%	9.4%
Equity Value Per Share	2,873.3	1,140.19	215.8	3.0%	9.4%
Assumptions:	2,873.3	1,140.19	215.8	3.0%	9.4%
WACC	14.2%	30.0%	23.1%	40.0%	8.9%
Target D/E*	30.0%	23.1%	40.0%	8.9%	6.3%
Target D/TC*	23.1%	40.0%	8.9%	6.3%	2.2%
Marginal Tax Rate	40.0%	8.9%	6.3%	2.2%	1.19
ke	8.9%	6.3%	2.2%	1.19	Terminal Value
Rf	6.3%	2.2%	1.19	Terminal Value	FCF 2020
Rf - Rm	2.2%	1.19	Terminal Value	FCF 2020	Terminal Growth Rate
Beta	1.19	Terminal Value	FCF 2020	Terminal Growth Rate	Terminal Period WACC
Terminal Value	FCF 2020	Terminal Growth Rate	Terminal Period WACC	FCF 2020	Terminal Growth Rate
FCF 2020	Terminal Growth Rate	Terminal Period WACC	FCF 2020	Terminal Growth Rate	Terminal Period WACC
Terminal Growth Rate	Terminal Period WACC	FCF 2020	Terminal Growth Rate	Terminal Period WACC	FCF 2020
Terminal Period WACC	FCF 2020	Terminal Growth Rate	Terminal Period WACC	FCF 2020	Terminal Growth Rate

Tabel 4. Valuation of Acquirer Company

Acquirer	2022	2023	2024	2025	2026
Free Cash Flow					
EBIT	70.0	99.0	136.4	184.4	245.8
Less: Taxes	(28.0)	(39.6)	(54.6)	(73.8)	(98.3)
Plus: Deprec. & Amort.	13.4	16.8	20.9	26.2	32.7
Less: Gross Capex	(43.2)	(54.0)	(67.6)	(84.4)	(105.6)
Less: Δ NWC	76.9	(4.5)	(5.1)	(5.7)	(6.5)
Equals: Free Cash Flow	89.06	17.64	30.17	46.65	68.17
Period	1.00	1.00	1.00	1.00	1.00
Mid-Year Convention	0.50	1.50	2.50	3.50	4.50
Discount Factor	0.89	0.84	0.75	0.67	0.60
PV FCFF	Rp 79.51	Rp 14.88	Rp 22.72	Rp 31.37	Rp 40.92
PV (Years 1- 5)	189.4				
PV (Terminal Value)	702.2				
Enterprise Value	891.5				
Plus Cash	158.3				
Less Debt & Min. Int.	(3,165.8)				
Equity Value	4,215.6				
Equity Value Per Share	29.76				
Assumptions:					
WACC	12.0%				
Target D/E*	20.0%				
Target D/TC*	16.7%				
Marginal Tax Rate	40.0%				
ke	7.9%				
Rf	6.3%				
Rf - Rm	2.2%				
Beta	0.75				
Terminal Value					
FCF 2020	68.2				
Terminal Growth Rate	3.0%				
Terminal Period WACC	9.0%				

Tabel 5. Valuation of New Company

Newco	2022	2023	2024	2025	2026
Free Cash Flow					
EBIT	4,405.7	6,028.4	8,326.1	11,197.8	15,074.5
Less: Taxes	(1,762.3)	(2,411.4)	(3,330.4)	(4,479.1)	(6,029.8)
Plus: Deprec. & Amort.	37.6	42.7	49.3	57.8	68.8
Less: Gross Capex	(45.3)	(56.8)	(71.3)	(89.5)	(112.4)
Less: Δ NWC	(1,139.7)	(685.6)	2,282.9	(4,382.7)	(1,508.5)
Equals: Free Cash Flow	1,467.8	2,895.2	7,244.2	2,307.1	7,517.6
Period	1.00	1.00	1.00	1.00	1.00
Mid-Year Convention	0.50	1.50	2.50	3.50	4.50
Discount Factor	0.96	0.89	0.82	0.76	0.70
PV FCFF	Rp 1,409.09	Rp 2,576.73	Rp 5,940.24	Rp 1,753.40	Rp 5,262.32
PV (Years 1- 5)	16,941.8				
PV (Terminal Value)	147,365.8				
Enterprise Value	16,941.8				
Plus Cash	(456.5)				
Less Debt & Min. Int.	(6,397.3)				
Equity Value	22,882.6				
Equity Value Per Share	Rp 115.56				
WACC =	8.1%				
Target D/E*	20.0%				
Target D/TC*	16.7%				
Marginal Tax Rate	40.0%				
ke	9.1%				
Rf	6.3%				
Rf - Rm	2.2%				
Beta	1.28				
Terminal Value					
FCF 2020	7,517.6				
Terminal Growth Rate	3.0%				
Terminal Period WACC	7.0%				

Newco Internal Rate of Return on Acquisition				
Purchase Price (including Transaction Expenses)	2020	(1,327.8)		
Free Cash Flows	2021	1,467.8		
	2022	2,895.2		
	2023	7,244.2		
	2024	2,307.1		
	2025	7,517.6		
Terminal Value		-		
IRR		177.6%		

The acquisition resulted in the creation of a new company with a combined equity value of IDR 22.8 T. The equity value per share for the new entity was IDR 115.56. This increase in equity value indicates the potential value creation resulting from the acquisition. The new company can capitalize on synergies, economies of scale and operational efficiencies to drive growth and profitability.

The company's free cash flow target is estimated to increase from Rp 6,028 billion in 2023 to Rp 15,074 billion in 2026. Assuming a target D/E of 20%, marginal tax rate of 40%, risk free of 6.3%, market return of 177% and beta of 1.28. Then the terminal growth rate is obtained at 3% and the terminal period WACC is 7.0%.

IV. CONCLUSION

PT Bumi Resources Mineral Tbk's acquisition of PT Pelat Timah Nusantara Tbk occurred at a price of IDR 115.56 per share. The target company's equity value was 2.87 T with an equity value per share of 1140.79. The acquiring company had an equity value of 4.21 T and an equity value per share of 29.76. After the acquisition, the equity value of the new company is 22.8 T with an equity value per share of 115.56. Based on this data, the offer for the new company can be considered undervalued as the equity value per share is lower than the value before the acquisition. Based on this data, the equity value per share of the combined company after the acquisition is lower than the equity value per share of the target company before the acquisition. It is considered that the offer for the combined company can be considered as undervalued, where the offer price per share is below the equity value per share before the acquisition.

In this research there are still many shortcomings and this research was conducted as a study or assignment for the Midterm Examination (UTS), and is not intended to conduct an actual merger or acquisition between the companies mentioned (Target, Acquire, and New Company).

V. REFERENCES

- [1] H. Hartana, "Existence And Development Group Companies In The Mining Sector (PT. Bumi Resources Tbk)," *Ganesha Law Review*, vol. 2, no. 1, pp. 54–69, 2020.
- [2] C. Haikal, N. Nurmalasari, N. H. Faujiah, and G. Djuanda, "PORTOFOLIO OPTIMAL DENGAN MODEL INDEKS TUNGGAL PADA INDUSTRI MANUFAKTUR," *Penerbit Tahta Media*, 2023.
- [3] K. H. Purnomo, S. Yusriani, I. S. Prambudi, and R. Ramdany, "Financial Report Analysis to Measure Financial Performance at PT. Pelat Timah Nusantara Tbk (NIKL)," *Dinasti International Journal of Management Science*, vol. 5, no. 3, pp. 621–633, 2024.
- [4] T. E. D. F. Gilalom, I. S. Saerang, and H. Tasik, "Analisis Komparasi Kinerja Keuangan Pada Perusahaan Otomotif Dengan Menggunakan Single Segment dan Multi Segment di BEI Periode 2017-2021," *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, vol. 11, no. 02, pp. 265–278, 2023.
- [5] S. Finkelstein and C. L. Cooper, *Advances in mergers and acquisitions*. Emerald Publishing Limited, 2024.

-
- [6] U. Awan, M. G. Arnold, and I. Gölgeci, “Enhancing green product and process innovation: Towards an integrative framework of knowledge acquisition and environmental investment,” *Business Strategy and the Environment*, vol. 30, no. 2, pp. 1283–1295, 2021.
 - [7] E. R. Feldman and E. Hernandez, “Synergy in mergers and acquisitions: Typology, life cycles, and value,” *Academy of Management Review*, vol. 47, no. 4, pp. 549–578, 2022.
 - [8] K. G. Ray, *Mergers and acquisitions: Strategy, valuation and integration*. PHI Learning Pvt. Ltd., 2022.
 - [9] E. R. Feldman and E. Hernandez, “Synergy in mergers and acquisitions: Typology, life cycles, and value,” *Academy of Management Review*, vol. 47, no. 4, pp. 549–578, 2022.
 - [10] H. Kwistianus, “The Long-Term Performance of Capital Expenditure from a Fundamental Perspective: Evidence from Indonesia,” Petra Christian University, 2022.
 - [11] U. Baig and M. A. Khalidi, “A grounded theory exploration of appraisal process of capital investment decisions—Capex appraisal model (CAM),” *Independent Journal of Management & Production*, vol. 11, no. 7, pp. 2778–2804, 2020.
 - [12] I. Gupta, N. Mishra, and N. Tripathy, “The impact of Merger and Acquisition on value creation: an empirical evidence,” in *The Importance of New Technologies and Entrepreneurship in Business Development: In The Context of Economic Diversity in Developing Countries: The Impact of New Technologies and Entrepreneurship on Business Development*, Springer, 2021, pp. 1435–1456.
 - [13] I. G. A. P. T. Putri and H. Rahyuda, “Effect of capital structure and sales growth on firm value with profitability as mediation,” *International research journal of management, IT and social sciences*, vol. 7, no. 1, pp. 145–155, 2020.
 - [14] S. Azizah and A. Indriyaningsih, “Alteration Of Net Profit, Debt, Inventory And Depreciation Cost On Future Operating Cash Flows,” in *Proceedings of the 3rd International Conference of Business, Accounting, and Economics, ICBAE 2022, 10-11 August 2022, Purwokerto, Central Java, Indonesia*, 2022.
 - [15] K. G. Palepu, P. M. Healy, S. Wright, M. Bradbury, and J. Coulton, *Business analysis and valuation: Using financial statements*. Cengage AU, 2020.