



DOI: <https://doi.org/10.38035/dijemss.v7i2>
<https://creativecommons.org/licenses/by/4.0/>

Strategic Management "Strategic Analysis at PT. Bukit Asam Tbk."

Imandy Yustine Wiyono¹, Werner R. Murhadi²

¹Master of Management, Faculty of Business and Economics, University of Surabaya, Indonesia, imanddyyy@gmail.com

²Master of Management, Faculty of Business and Economics, University of Surabaya, Indonesia, werner@staff.ubaya.ac.id

Corresponding Author: imanddyyy@gmail.com¹

Abstract: The purpose of this study is to analyze the strategy of PT. Bukit Asam Tbk in facing the challenges of the climate crisis, global coal price fluctuations, mining industry competition, and national and international energy transition policies. This study uses a descriptive qualitative approach with a focus on strategy formulation, where analysis is conducted on the company's internal and external environments. Data are obtained from the company's annual report, government regulations, and related secondary sources. The results of the internal and external environmental analysis produce the strengths, weaknesses, opportunities, and threats (SWOT) of PT Bukit Asam Tbk. The SWOT analysis is then entered into a strategy matrix such as External Factor Evaluation (EFE), Internal Factor Evaluation (IFE), Porter's Five Forces, SPACE Matrix, BCG Matrix, IE Matrix, Grand Strategy Matrix (GSM), and Quantitative Strategic Planning Matrix (QSPM). The final strategic recommendation obtained is that PT. Bukit Asam Tbk's strategic choice is product development with diversification into renewable energy, domestic market expansion considering the still large domestic market potential.

Keywords: Coal Mining, Environmental Sustainability, Strategy Formulation, SWOT Analysis, Product Development

INTRODUCTION

PT Bukit Asam Tbk is part of the state-owned mining holding company MIND ID which is engaged in coal mining. Until the end of 2022, the company's business network consists of five managed areas and three ports. The company's coal production mining business permit (IUP) has a total managed area of 65,632 hectares with resources reaching 5.85 billion tons and 3.02 billion tons of reserves. The main reason I chose the Bukit Asam Tbk company was to see whether the challenges of the climate crisis, the challenges of coal prices that tend to fall in the global market and the challenges to similar mining companies in Indonesia and activists and the community and several economists who have highlighted the impact of environmental damage and the impact of state revenues from this coal mining business whether coal mining companies such as PT Bayan Resources Tbk can be sustainable against these problems also added to the policies of world countries with reducing the use of fossil fuel-based energy.

These factors have led me to conduct a strategic analysis of PT Bukit Asam Tbk., not just for academic purposes, but also to provide input and strategies that management might consider to aid the development of palm oil companies in Indonesia.

Kata kunci: pertambangan batu bara, keberlanjutan lingkungan, formulasi strategi, analisis SWOT, pengembangan produk

METHOD

This study used AALI's 2023 annual report data available on the AALI Indonesia website (www.astra-agro.co.id) for internal analysis. External analysis utilized current business developments, regulatory requirements, and social factors. This research employed a qualitative descriptive approach, describing the current state of the coal mining industry, coupled with technological advancements and competition from start-up companies. The data analysis method used to formulate the strategy was a conceptual model (David et al., 2023), which involved three stages: Input Stage 1, Matching Stage 2, and Decision Stage 3. In the input stage, brainstorming sessions were conducted between employees and management. A team also provided external data related to economic data, competition, and future policies. After data collection and discussions, the company entered stage 1. Stage 1 involves determining the factors considered to influence the business, both supporting and inhibiting factors, and considering internal factors related to the company's strengths and weaknesses. Once these factors are determined, the second stage begins, where management brainstorms to identify strategic alternatives that might be developed in the near future. After these alternatives are presented, the two to three best alternatives are selected using the Ansoff Model (Murhadi, 2024b). Once the strategic priorities are established, the next step is to determine the sequence of strategic implementation using the QSPM approach, thus selecting the primary strategic alternatives to be implemented by the company.

RESULTS AND DISCUSSION

I. EXTERNAL AUDIT

A. Porter's Five Forces & Generic Strategies Porter's Five Forces & Generic Strategies

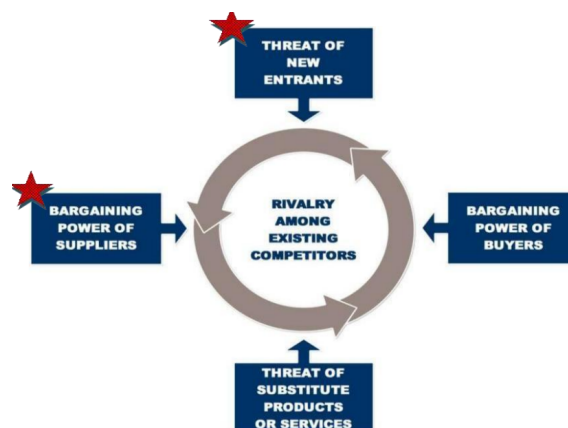


Figure 1. Model Porter's 5 Forces PT. Bukit Asam

1. *Threat of New Entrants (star)*

Traditional Competitors introduce new products and services to attract customers so that customers are more interested in buying their products. With the existence of new products and services, their brands are more able to compete with other companies. In this case, PT. Adaro Energy has become one of the largest coal mining companies and is a traditional competitor of PT. Bukit Asam, especially recently PT. Adaro Energy received an award as a coal mining

company with the highest production level in Indonesia of 65.88 million tons. Meanwhile, new players in the market in this increasingly advanced era, new companies can easily enter the market. Because new companies have more creative ideas that can attract the attention of customers so that customers are interested in buying their products. The advantage of new companies is that they can hire new, younger employees with greater energy but not with too large salaries. On the other hand, with the new government policy regarding the distribution of mining permits to religious organizations, it will lead to the emergence of many new mining companies that will collaborate with mass organizations to work on the mining permits they have. To deal with this problem, PT. Bukit Asam uses the first method, namely by improving the quality of human resources in their company in managing the company mining by improving the quality of coal mining land selection that has good quality so that the production results can have good selling value in the global market, furthermore, with PT. Bukit Asam as a state-owned company they will have more freedom to lobby Religious Organizations in helping them in exploring mining IUP permits granted by the government, and finally the binding of the amount of production each year must not be below the production target. This company operates the largest single coal mine in Indonesia (in South Sumatra) and aims to become the largest mining group in Indonesia that also pays attention to Environmental Aspects.

2. *Threat of Substitute Product (no star)*

Substitute products and services in this increasingly sophisticated era, many substitute goods can replace basic functions if primary resources become increasingly expensive so that customers cannot afford them. With increasingly sophisticated technology, substitute goods will increase. However, for the coal mining industry, coal is actually used as a variety of alternative products, such as coal gasifiers as a more efficient replacement for burners. Then still supported by the Indonesian government's own policy regarding new energy, almost 50% still uses coal in meeting the National Energy capacity.

3. *Bargaining Power of Buyers (no star - moderate)*

The bargaining power of buyers pressures prices downward and demands better quality and services, and making competitors compete with each other. This is related to the ability of consumers to influence the selling price of goods so that it becomes lower. In the last 5 years, coal prices in the global market have tended to decline. There are several reasons that influence this decline, including: Dynamics of the Global Energy Market. Changes in coal prices are often closely correlated with the dynamics of the global energy market. Fluctuations in the prices of oil, natural gas, and other alternative energy sources can affect the demand and supply of coal. In this case, the price decline may be a response to changes in the dynamics of global energy supply and demand, including the increasing use of renewable energy, which reduces dependence on coal.

4. *Bargaining Power of Suppliers (star)*

Suppliers can use bargaining power against buyers in the industry by raising prices or lowering the quality of purchased products or services. Companies try to get the cheapest possible price with high quality. If the company obtains such suppliers, then the company will get good competition compared to competitors. with the largest control in South Sumatra in this case PT. BukitAsam has a high bargaining power in the consumer market in providing coal quality from the highest to the lowest grade plus government

policy where the PLN company has an obligation to buy raw coal from the company with more than the total value of their daily needs per Metric Ton.

5. *Rivalry Among Existing Competitors (no star - moderate)*

PT. Bukit Asam is a government-owned coal mining company and they have rivals with private mining companies such as Adaro Energy and Byam Resources where PT. Bukit Asam is the only state-owned company that can compete and is included in the top 5 mining companies that have and can produce 50 million tons of coal in one year and PT. Bukit Asam is also the main supplier of PLTUPLN with a total of 27 million metric tons per year, far ahead of Adaro which is ranked 3rd with a contribution of 12.5 million tons per year.

II. External Factor Evaluation (EFE) Matrix

Table 1. Eve Matrix

Opportunities		Weight	Rating	Weighted Score
1	Proyeksi Permintaan Batu - Bara global yang akan di atas 8 Miliar/ Metrik Ton hingga Tahun 2026.	0.05	4	0.20
2	Kondisi geopolitik di kawasan Eropa menyebabkan adanya permintaan Export batu bara ke Eropa terutama pada saat musim dingin.	0.10	3	0,15
3	Mulai bangkitnya Ekonomi China dan Proyeksi kebutuhan pada kuartal 1 tahun 2024 akan melonjak sebesar 17%.	0.05	3	0.15
4	Penjualan listrik PLN tumbuh sebesar 5,32% (yoy) pada tahun 2023 menjadi 285,23 Terrawatt/ hour.	0.10	4	0,40
5	Tingginya konsumsi listrik pada tahun 2023 yang naik sebesar 14% dari tahun sebelumnya akibat faktor Climate Change	0.06	3	0.18
6	Bekerjasama dengan Ormas Agama terkait dengan pengelolaan Izin tambang (IUP) terkait, pengelolaan lahan pertambangan secara Profesional.	0.05	3	0.15
7	Peluang Pengembangan teknologi pertambangan berbasis Elektrifikasi.	0.04	3	0.15
8	Peluang pengembangan bisnis berbasis Green Energy bersama BRIN & NGO melalui program perusahaan.	0.03	4	0.12
Threats		Weight	Rating	Weighted Score
1	Rencana pemerintah terhadap pemensiunan dini PLTU batu bara di Indonesia.	0.05	1	0.05
2	Pembatasan Import batu bara dengan kualitas tertentu seperti di negara Jepang dan Korea Selatan.	0.05	2	0.10
3	Harga batu bara yang masih tertekan di market global walaupun akan menguat secara jangka panjang.	0.05	2	0.10
4	Kebijakan Pemerintah dalam pemberian Izin pertambangan terhadap Ormas Keagamaan yang tidak memiliki rekam jejak dalam mengelola pertambangan.	0.10	2	0.20
5	Tumpang tindih izin pertambangan dan lama proses pembebasan lahan menyebabkan lamanya proyek pertambangan itu di kerjaka PT. Bukit Asam.	0.07	3	0.21
6	Penetapan Kuota domestik dan kebijakan terkait domestik Energy Security oleh pemerintah.	0.05	2	0.10
7	Adanya tekanan dari masyarakat global dan Lembaga Internasional untuk mengurangi ketergantungan energy fosil dalam pemenuhan energi dalam negeri ataupun dunia.	0.05	1	0.05
8	Kenaikan Royalty atau pajak dan kewajiban proses upgrading terkait produk batu bara.	0.05	1	0.05
Total EFE Score		1.00	0	2.51

III. CPM Matrix

Table 2. CPM Matrix

Critical Success Factors	Weight	PTBA		ADARO		BUMI R	
		Rati ng	Sco re	Rati ng	Sco re	Rati ng	Scor e
Global Expansion	0.10	3	0.30	4	0.40	4	0.40
Productivity	0.10	4	0.40	4	0.40	4	0.40
Market Share	0.05	3	0.15	2	0.10	4	0.20
Serapan Produk untuk Segment Nasional	0.15	3	0.45	2	0.30	2	0.30
Teknologi Ramah Lingkungan	0.15	4	0.60	3	0.45	3	0.45
Product Quality	0.10	3	0.30	4	0.40	4	0.40
Financial Profit	0.10	3	0.30	4	0.40	3	0.30
Resouceses	0.10	3	0.30	4	0.40	4	0.40
Sosial Synergy	0.15	4	0.60	2	0.30	2	0.30
Totals	1.00		3.40		3.15		3.25

Conclusion:

According to the CPM table, PT Bukit Asam, with a score of 3.40, is slightly superior to PT Bumi Resources, with a score of 3.25, followed by Adaro Energy with a score of 3.15. Comparatively, factors contributing to PT Bukit Asam's superiority include the absorption of Batupara products in the local market segment. In 2023, PT Bukit Asam became a coal mining company contributing 19 million tons to PLN's coal-fired power plant (PLTU), product processes, and production technology in mining operations. Based on PT Bukit Asam's 2023 annual report, this state-owned mining company has replaced its mining operational equipment, which previously used petroleum fuel, with the switch to electric vehicles. Some of the electric-based equipment used by PTBA includes the PC-3000 electric excavator, a 100-ton hybrid dump truck (diesel and electric), and an electric mining pump. Meanwhile, Adaro has just started its renewable energy program by building a hydroelectric power plant in North Kalimantan and a solar power plant (PLTS) in Batam. Meanwhile, the first phase of the aluminum smelter project with a capacity of 500,000 tons of ingots is targeted for commercial operation in Q3-2025. With the pressure of the international world regarding the reduction of the fulfillment of world energy produced from fossil raw materials such as coal, PT. Bukit Asam is one step ahead of PT. Bumi and Adaro in terms of sustainable Green Energy in the world of coal mining in Indonesia and related to social energy, PT. BA is superior to Adaro and Bumi where, PT. Bukit Asam collaborates with BRIN and PUPR in supporting the CSR program and the Business Line Diversification Program where mining companies will enter the market of environmentally friendly energy service providers.

IV. Internal Factor Evaluation (IFE) Matrix

Table 3. Internal Factor Evaluation Matrix

Strengths	Weight	Rating	Weighted Score
1 Perusahaan Pertambangan berlabel BUMN	0.10	4	0.40
2 Pengalaman dan keahlian.	0.08	3	0.24
3 Memiliki Brand yang sudah di kenal secara luas.	0.07	3	0.21
4 Memiliki Cadangan Batu bara yang tertinggi di antara perusahaan BUMN lainnya di bidang pertambangan	0.05	3	0.15
5 Produksi Batu bara mengalami peningkatan sebesar 41,9 Juta Ton pada tahun 2023	0.05	4	0.20
6 Pendapatan perusahaan sebesar 38,5 triliun, tahun 2023	0.05	4	0.20
7 Kenaikan Volume Penjualan	0.05	3	0.15
8 Perusahaan pertambangan yang Mendukung Transisi EBT	0.05	3	0.15
9 Perusahaan Batu bara yang memiliki konsep Hirilisasi yang baik	0.04	3	0.12
Weaknesses	Weight	Rating	Weighted Score
1 Keputusan Menteri Energi dan Sumber Daya Manusia Nomor 399.K/MB.01/MEM.B/2023	0.08	2	0.16
2 Harga Batu Bara cenderung turun dalam 5 tahun kebelakang di pasar Global	0.08	2	0.16
3 Proses Bisnis Pertambangan yang terlalu terpusat di Tanjung Enim	0.10	2	0.20
4 Tingkat Produktifitas yang tergolong masih rendah dikalangan Perusahaan Batu Bara di Indonesia	0.05	2	0.10
5 Tumpang Tindih Izin Pertambangan di Lahan PT. Bukitb Asam	0.05	2	0.10
6 Angkutan batubara sangat tergantung dengan PT KAI	0.04	2	0.08
7 Ancama Terhadap Pemensiunan Dini PLTU dan tekanan Global terhadap program penurunan Gas Emisi Rumah Kaca dan Net Zero Carbon	0.04	1	0.04
Total IFE Score	1.00	0	2.72

V. STRATEGY DEVELOPMENT ANALYSIS

FINANCIAL POSITION (FP)	nilai		Industry Postion (IP)	nilai
Liquidity Rasio	5		Growth Potential	4
Profitability Rasio	5		Financial Stability	6
DER	5		Resource Utilization	5
ROA	5		<i>Profit Potential</i> (Potensi Keuntungan)	4
ROE	5			
AVG	5		AVG	4,8
Stability position (SP)	nilai		competitive postion (CP)	nilai
Technology Changes	-5		Market share	-4
Rate of Inflation	-3		Produk quality	-4
<i>Barriers to Entry into Market</i>	-4		Customer Loyalty	-3
<i>Price Elasticity of Demand</i>	-2		Product Life Cycle	-4
<i>Competitive Pressure</i>	-5		<i>Control over Suppliers and Distributors</i>	-3
AVG	-3,8		AVG	-3,6
total sumbu Y	1,2		total sumbu x	1,2

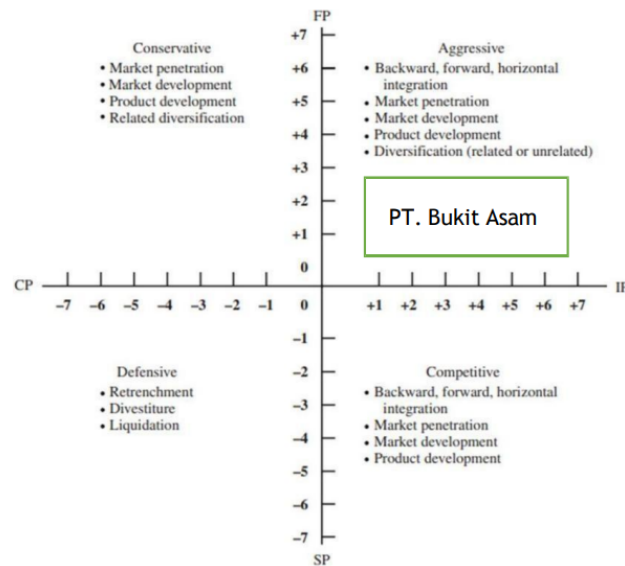


Figure 2. Space Matrix

B. BCG MATRIX

Table 4. BCG Matrix



PT. Bukit Asam COAL Maining (Stars): Demonstrates strong performance in a rapidly growing market with significant market share. Focus on mining productivity to maintain company profit growth and investment in product quality to enter the Japanese and South Korean markets.

Bukit Asam Logistics (Question Marks): Requires investment to increase market share and demonstrate growth potential. Focus on market penetration strategies and product and service development to meet future needs.

Bukit Asam Energy (dogs): Has not yet achieved stable and significant results because it remains in a relatively low market due to uncertain government policies related to the National Energy Strategy Plan and the National Energy Mix.

C. IE Matrix

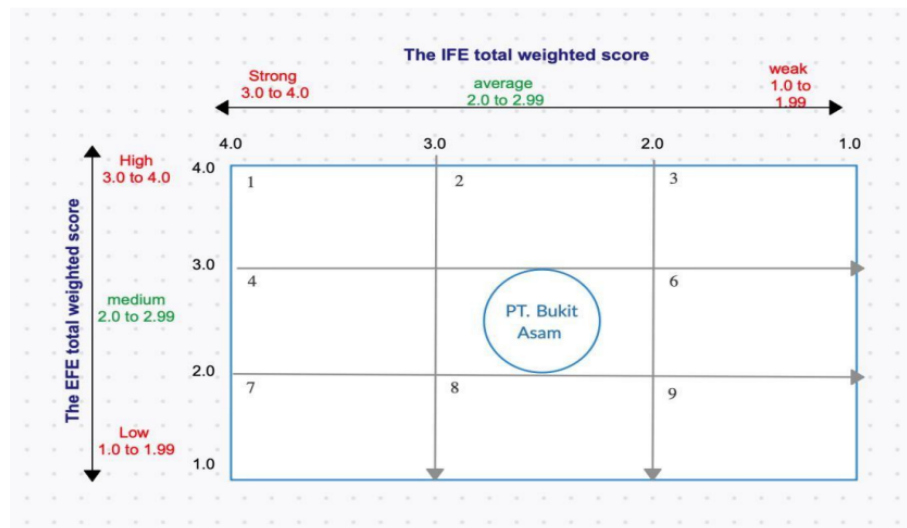


Figure 3. IE Matrix

PT. Bukit Asam is located in Quadrant 5 of the IE Matrix because it has a balance of internal strengths and weaknesses, as well as external opportunities and threats. The appropriate strategy for PT. Bukit Asam is "Hold and Maintain," which focuses on product development and expanding its market position. This involves increasing mining productivity and developing innovative new products in line with current and future market needs and preferences.

VI. Strategy Selection QSPM

A. The Quantitative Strategic Planning Matrix (QSPM)

Table 5. QSPM Matrix

Produk		Pengembangan Pasar				
Strengths		Weight	AS	TAS	AS	TAS
1	Perusahaan Pertambangan berlabel BUMN	0.10	3	0.15	2	0.10
2	Pengalaman dan keahlian.	0.08	4	0.32	2	0.16
3	Memiliki Brand yang sudah di kenal secara luas.	0.07	3	0.21	2	0.14
4	Memiliki Cadangan Batu bara yang tertinggi di antara perusahaan BUMN lainnya di bidang pertambangan	0.05	3	0.15	4	0.20
5	Produksi Batu bara mengalami peningkatan sebesar 41,9 Juta Ton pada tahun 2023	0.05	4	0.20	2	0.10
6	Pendapatan perusahaan sebesar 38,5 triliun, tahun 2023	0.05	4	0.20	4	0.20
7	Kenaikan Volume Penjualan	0.05	4	0.20	2	0.10
8	Perusahaan pertambangan yang Mendukung Transisi EBT	0.05	2	0.10	4	0.20
9	Perusahaan Batu bara yang memiliki konsep Hirilisasi yang baik	0.04	4	0.16	4	0.16
Weaknesses			AS	TAS	AS	TAS
1	Keputusan Menteri Energi dan Sumber Daya Manusia Nomor 399.K/MB.01/MEM.B/2023	0.08	0	0.00	0	0.00
2	Harga Batu Bara cenderung turun dalam 5 tahun kebelakang di pasar Global	0.10	0	0.00	0	0.00
3	Proses Bisnis Pertambangan yang terlalu terpusat di Tanjung Enim	0.05	3	0.15	1	0.05
4	Tingkat Produktifitas yang tergolong masih rendah dikalangan Perusahaan Batu Bara di Indonesia	0.05	3	0.15	2	0.10
5	Tumpang Tindih Izin Pertambangan di Lahan PT. Bukit Asam	0.08	4	0.32	2	0.15
6	Angkutan batubara sangat tergantung dengan PT KAI	0.04	3	0.12	1	0.04
7	Ancama Terhadap Pemensiunan Dini PLTU dan tekanan Global terhadap program penurunan Gas Emisi Rumah Kaca dan Net Zero Carbon	0.10	2	0.20	4	0.40
Produk		Pengembangan Pasar				
Opportunities		Weight	AS	TAS	AS	TAS
1	Proyeksi Permintaan Batu - Bara global yang akan di atas 8 Miliar/ Metrik Ton hingga Tahun 2026.	0.05	4	0.20	4	0.20
2	Kondisis geopolitik di kawasan Eropa menyebabkan adanya permintaan Export batu bara ke eropa terutama pada saat musim dingin.	0.10	1	0.10	4	0.40

3	Mulai bangkitnya Ekonomi China dan Proyeksi kebutuhan pada kuartal 1 tahun 2024 akan melonjak sebesar 17%.	0.10	4	0.40	3	0.30
4	Penjualan listrik PLN tumbuh sebesar 5,32% (yoy) pada tahun 2023 menjadi 285,23 TeraWath/ hour.	0.10	4	0.40	3	0.30
5	Tingginya konsumsi listrik pada tahun 2023 yang naik sebesar 14% dari tahun sebelumnya akibat faktor Climate Change	0.10	4	0.40	3	0.30
6	Bekerjasama dengan Ormas Agama terkait dengan pengelolaan Izin tambang (IUP) terkait, pengelolaan lahan pertambangan secara Profesional.	0.10	2	0.20	1	0.10
7	Peluang Pengembangan teknologi pertambangan berbasis Elektrifikasi.	0.04	1	0.04	4	0.16
8	Peluang pengembangan bisnis berbasis Green Energy bersama BRIN & NGO melalui program perusahaan.	0.03	1	0.03	4	0.12
		Pengembangan Pasar		Pengembangan Produk		
Threats		Weight	AS	TAS	AS	TAS
1	Rencana pemerintah terhadap pemensiunan dini PLTU batu bara di Indonesia.	0.05	2	0.10	4	0.20
2	Pembatasan Import batu bara dengan khwalitas tertentu seperti di negara Jepang dan Korea Selatan.	0.05	2	0.10	4	0.20
3	Harga batu bara yang masih tertekan di market global walaupun akan menguat secara jangka panjang.	0.05	2	0.10	4	0.20
4	Kebijakan Pemerintah dalam pemberian Izin pertambangan terhadap Ormas Keagamaan yang tidak memiliki rekam jejak dalam mengelola pertambangan.	0.10	1	0.10	3	0.30
5	Tumpang tindih izin pertambangan dan lama proses pembebasan lahan menyebabkan lamanya proyek pertambangan itu di kerjaka PT. Bukit Asam.	0.07	2	0.14	3	0.21
6	Penetapan Kuota domestik dan kebijakan terkait domestik Energy Security oleh pemerintah.	0.05	0	0.00	0	0.00
7	Adanya tekanan dari masyarakat global dan Lembaga Internasional untuk mengurangi ketergantungan energy fosil dalam pemenuhan energi dalam negeri ataupun dunia.	0.05	1	0.05	4	0.20
8	Kenaikan Royalty atau pajak dan kewajiban proses upgrading terkait produk batu bara.	0.05	1	0.05	4	0.20
TOTALS				5.04		5.49

Based on the results of the Grand Strategy Matrix analysis conducted previously, the two main alternative strategies that PT Bukit Asam can employ are Product Development and Market Development. The primary strategy appropriate for PT Bukit Asam is Product Development, with a score of 5.49. This is based on an in-depth analysis of various internal and external factors, and the reasons are as follows: The primary reason for selecting Product Development as the primary strategy is the continued decline in global market demand over the past five years. This is due to international pressure and the global community's collective awareness that coal use is It is extremely environmentally unfriendly in its energy supply. On the other hand, PT Bukit Asam, as a state-owned enterprise, has taken concrete steps in developing its distribution business. They are collaborating with PT KAI to increase the productivity of efficient and environmentally friendly coal transportation. They are also developing and diversifying their business lines. They already have partnerships and will increase their capacity to meet solar-powered energy needs, particularly at Soekarno-Hatta Airport and several locations along the Trans-Java Toll Road.

CONCLUSION

Coal holds significant potential to support various sectors of life today. There are at least three main sectors that offer promising business opportunities: household needs, transportation fuels, and industrial activities: Household Needs: You can utilize coal mining products for household needs in the form of heat and electricity. This is because coal is one of the largest

sources of electricity generation in Indonesia. Considering that most daily activities are currently highly dependent on electricity, coal can also be processed into briquettes that can generate heat energy. Briquettes are now widely used for cooking. Therefore, you can find a good opportunity to develop a mining business to meet household needs. Sumber Bahan Bakar Transportasi empowers the coal business in the form of transportation fuels, especially gas and liquid fuels.

Meanwhile, liquid fuels or oil require further processing. Coal must be processed into lumps and powder before being dissolved at high temperatures. The coal, which has been converted into oil, is then combined into a coal-water mixture. This product has a thick, homogeneous, and stable suspension, making it a potential fuel alternative. The industrial sector also sees the use of coal mining products in several industrial sectors, such as the cement and healthcare industries. Coal is not only used as a transportation fuel but also as a fuel for combustion processes in the cement industry. Given the current uncertain situation, the increasingly depressed coal prices on the global market over the past five years, and the increasing global pressure to reduce coal production to prevent a more severe climate crisis, it is no exaggeration to say that PT Bukit Asam must immediately consider product development strategies to survive in the mining and energy service sectors. The challenge is the dwindling reserves of Indonesian coal, which are projected to run out by 2050, assuming annual coal extraction of 600-700 million tons. Furthermore, coal royalty taxes are increasing, and the government's policy of "selling" coal mining permits to religious organizations with no prior experience in coal mining is also increasing.

REFERENCE

- David, F. R., David, F. R., & David, M. E. (2023). *Strategic management: A competitive advantage approach* (17th ed.). Pearson Education Limited.
- International Energy Agency. (2023). *Coal market update and energy outlook 2023*. International Energy Agency.
- Kementerian Energi dan Sumber Daya Mineral Republik Indonesia. (2023). *Handbook of energy & economic statistics of Indonesia 2023*. Kementerian ESDM.
- Kementerian Energi dan Sumber Daya Mineral Republik Indonesia. (2023). *Keputusan Menteri ESDM Nomor 399.K/MB.01/MEM.B/2023 tentang pemenuhan kebutuhan batu bara dalam negeri*.
- Kontan Media. (2023). *Kinerja PT Bukit Asam Tbk di tengah koreksi harga batubara global*. Kontan.co.id.
- Minelog Services. (2023). *Manajemen pertambangan batubara dan pengalaman PT MSI (Bagian 2)*.
- Porter, M. E. (2008). The five competitive forces that shape strategy. *Harvard Business Review*, 86(1), 78–93.
- PT Bukit Asam Tbk. (2022). *Sustainability report PT Bukit Asam Tbk 2022*. PT Bukit Asam Tbk.
- PT Bukit Asam Tbk. (2023). *Laporan tahunan PT Bukit Asam Tbk tahun 2023*. PT Bukit Asam Tbk.
- PT Bukit Asam Tbk. (2024). *Laporan keberlanjutan dan program corporate social responsibility (CSR)*. PT Bukit Asam Tbk.
- Republik Indonesia. (2020). *Undang-Undang Nomor 3 Tahun 2020 tentang perubahan atas Undang-Undang Nomor 4 Tahun 2009 tentang pertambangan mineral dan batubara*. Lembaran Negara Republik Indonesia.
- Republik Indonesia. (2021). *Peraturan Pemerintah Nomor 96 Tahun 2021 tentang pelaksanaan kegiatan usaha pertambangan mineral dan batubara*. Lembaran Negara Republik Indonesia.

- Republik Indonesia. (2022). *Peraturan Presiden Nomor 112 Tahun 2022 tentang percepatan pengembangan energi terbarukan*. Sekretariat Negara Republik Indonesia.
- Republik Indonesia. (2024). *Peraturan Pemerintah Nomor 25 Tahun 2024 tentang perubahan atas Peraturan Pemerintah Nomor 96 Tahun 2021*. Lembaran Negara Republik Indonesia.
- Reuters. (2023). *Global coal demand and energy transition outlook*. Reuters Energy Report.
- Sari, A., & Tim Peneliti. (2019). Manajemen dan pengembangan operasional tambang batu bara pada PT Tri Eka Bersama. *Jurnal Teknik Pertambangan*. Neliti.