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EVALUATION AND ANALYSIS OF DECISION-MAKING ON THE BUSINESS METHOD OF THE PASEH'S STRATEGIC BUSINESS UNIT (SBU) FOR THE STONES AND NON-METALLIC MINE AT JASA SARANA (BUMD OF WEST JAVA)

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Abstract

Jasa Sarana is a BUMD Holding of the West Java Provincial Government engaged in Infrastructure. In running its business, Jasa Sarana applies the Business Strategic Unit (SBU), a rock and non-metal mineral mining business. It was initiated in 2005-2006, with a mining area of 19.45 hectares, with rock mineral resource reserves of 3.3 million BCM. However, it could only do optimized by 24% over 16 years. If done correctly, the mining business plan must be implemented for only 15 years. With a target Payback Period of 3.35 Years, an NPV of Rp. 1,641,000,000, and IRR of 20.44%. The remaining rock mineral resources currently available are 2.5 million BCM, expected to be re-developed and generate profits for the company. Jasa Sarana has carried out preparatory steps, including conducting feasibility studies and exploratory research on this mining business unit. It did expect that the losses suffered by the company could recover in a fast time. Decision-making on the right ways and methods to reactivate this Business Unit becomes a concentration of research, consisting of situation assessment, decision analysis, and analysis of potential problems. An evaluation of the situation determines the conditions and causes of business operations underperforming externally and internally. Several problems were revealed, such as corruption, mis-partners, ineffective work methods, to improper handling of mining techniques, which became the root of the problem. Jasa Sarana has several options for handling this Business Unit with several alternatives. Including running this business unit owned by providing additional capital and recruiting competent experts, looking for the right partner with the qualifications of an experienced partner, or even selling this business unit so that it does not become a burden on the company.

Keywords: evaluation and analysis, decision-making, business of rocks and sands mine

Introduction

As a province with economic growth ranked third largest in Indonesia, infrastructure development in West Java is considered capable of supporting the national economy, including multiplier effects and long-term positive impacts (Singh, Murty, Gupta, & Dikshit, 2007).

(Sources: https://id.wikipedia.org/wiki/Proyek_Strategis_Nasional)
Figure 1 Maps of National Strategic Project in 2020 until 2021

In 2020 until 2021, more than 30 National Strategic Projects were placed in West Java. Based on the Presidential Regulation of the Republic of Indonesia Number 109 of 2020 concerning the Third Amendment to Presidential Regulation Number 3 of 2016 concerning the Acceleration of the Implementation of National Strategic Projects and the Regulation of the Minister of Finance (PMK) Number 30 / PMK.08 / 2021 concerning Procedures for Providing Central Government Guarantees to Accelerate the Implementation of National Strategic Projects, among others (Worrall, Neil, Brereton, & Mulligan, 2009):

Table 1 List of National Strategic Projects in 2020 until 2021

SECTOR	LIST OF NATIONAL STRATEGIC PROJECTS
Roads and Bridges	Cileunyi – Sumedang – Dawuan Toll Road
	Ciawi – Sukaburni. – Ciranjang Padalarang Toll Road
	Serpong – Cinere Toll Road
	Cinere – Jagorawi Toll Road
	Cimanggis – Cibitung Toll Road
	Cibitung – Cilincing Toll Road
	Bekasi – Cawang – Kampung Melayu Toll Road
	Jakarta – Cikampek II Sisi Selatan Toll Road
	Extension Ring-Road Depok Antasari
	Extension Ring-Road Bogor of West Java Province
	Gedebage – Tasikmalaya – Cilacap Toll Road
	Patimban Port Access
Port	Patimban Port Construction
	Inland Waterways Cikarang – Bekasi – Laut (CBL)
Railways	Jakarta – Surabaya Railways
	Double Track of South Java
	High Speed Railways Jakarta – Bandung

SECTOR	LIST OF NATIONAL STRATEGIC PROJECTS
	Integrated Light Rail Transit (LRT) in Jakarta, Bogor, Depok, and Bekasi
Dam	Kuningan Dam
	Leuwikeris Dam
	Cipanas Dam
	Sukamahi Dam
	Ciawi Dam
	Sadawarna Dam
	Rehabilitation of Irrigation Network of Irrigation Area Range
Sanitation and Clean Water	Water Supply System (SPAM) Regional Jatigede
	Water Supply System (SPAM) Jatiluhur Regional
Coastal Embankment	Coastal Embankment on The West Java section
Energy Sector	Upgrading Existing Refineries (RDMP) and Balongan Petrochemical Industry
Education	Construction of the Indonesian International Islamic University Campus

Sinergy between stakeholders with a Penta helix approach (collaboration between the Government, Business Actors, Campuses, Communities and Media) is needed to strengthen connectivity, regulation, priority setting, and debottlenecking infrastructure both at the national and regional levels, especially West Java.

With the many strategic infrastructure developments in West Java, it is certain that the need for basic raw materials in the form of rock minerals is very large (Van Berkel, 2000). In addition, the need for the retail market in raw materials almost never subsides, because West Java as one of the largest regions in Indonesia has a dominant modern urban typology with the need for adequate infrastructure development. The increasing percentage of domestic infrastructure development that is currently underway is one of the main factors in the growing need for primary raw materials for mining products, especially mining products of rock excavated materials (Kamenopoulos, Agioutantis, & Komnitsas, 2018).

The rock mining industry, especially with types of excavated materials in the form of sand and andesite, will have promising prospects in the future (Panjaitan & Sunitiyoso, 2021). This was marked by the beginning of the development of several national-scale strategic infrastructure projects in several regions by the Central Government and Regional Governments. Rock excavated materials, especially sand and andesite, will be used as basic raw materials in various developments such as road infrastructure, bridges, irrigation canals and various kinds of building construction.

By considering these macro and micro conditions, the Company seeks to capture these benefits by optimizing the assets owned, one of which is the Paseh Strategic Business Unit (SBU). With the potential for adequate rock resource reserves, at least it

can support several national strategic projects that are handled directly by the Company. Material needs in the form of sand and splits can be directly supplied by SBU Paseh, to reduce production costs and provide certainty for the availability of raw materials.

Method

Data Analysis Method

Kepner-Tregoe (KT) Problem Analysis

In this final project, the Kepner-Tregoe (KT) Problem Solving and Decision Making process will focus on Problem Analysis (PA). Problem Analysis is a systematic problem-solving process (Yu, 2002). It is a structured methodology for analyzing problems using root cause analysis and systematic problem solving. By using this methodology, we can avoid solving problems by making assumptions or jumping to final conclusions, and avoid reactive actions in decision making. Kepner & Tregoe defined 5 (five) steps of analyzing problems using Kepner-Tregoe (KT) Problem Solving (1981:38) :

Results and Discussion

Analysis

Define Business Problem

The Strategic Business Unit (SBU) Division functions to drive sustainable revenue growth for the Company through prospective and value-added business development and building partner / 3rd party cooperation. Mining is a business line that functions under the Strategic Business Division (SBU Division) which was formed by the Company in early 2020. The establishment of this unit is to benefit from construction services business opportunities on projects handled by the Company's subsidiaries and affiliated companies (Jasa Sarana Group), not to mention government and private projects.

Figure 1 Site of Paseh’s Mine Situation

In its journey, the SBU Division continues to improve in completing the administrative requirements required in the contract acquisition process through auctions and beauty contests and other schemes, including building strategic

partnerships with potential and competent partners. The Company, through the SBU Division, has established several partnerships with strategic partners in the fields of road construction, building construction, renewable energy plant construction, precast concrete production batching plant, asphalt production, etc.

Figure2

Paseh's Strategic Business Unit of Jasa Sarana

The Company and its partners have participated in several tender processes, including the Joint Operation ("JO") with PT Sarana Seja Ibadah to participate in the auction of the Sukabumi Ring Road Project Regional Budget. However, there was a refocusing of the APBD budget at that time to handle the Covid-19 pandemic, so the tender was finally canceled.

The Company together with Dirgantara Yudha Artha (PT DYA) formed a JO to participate in the tender for the construction work package of the Cisumdawu Toll Road Project held by PT Citra Karya Jabar Tol (Toll Road Business Entity), but unfortunately the KSO has not had the opportunity to participate in the implementation of the project. However, the Company actively supplies natural materials such as embankment materials including gravel, stone, sand, etc., which are transported from the Company's own quarry in Paseh-Sumedang.

The Company has assets in the form of sand and stone mines covering an area of ± 21.5 Ha, where the calculation is based on the provisions in the Mining Business License covering ± 19.45 Ha located in Paseh Kaler Village, Paseh District, Sumedang Regency, West Java Province (Dubiński, 2013). Based on the results of the study (initial FS) conducted by the Company, the potential reserves of Sandstone (Sirtu) amounted to + 2,284,278 BCM (equivalent to 5,939,122.8 tons) and Andesite ± 274,442 BCM (equivalent to 749,226.66 tons).

SWOT Analysis

The brain storming method is used to define and determine several alternative solutions by involving the company's stake holders in a Focus Group Discussion forum. Shareholders used several opportunities and strengths of SWOT analysis in table 2.7 to

develop alternatives. The shareholders decided to choose 3 (three) alternatives as long-term solutions to overcome the inoperability of SBU Paseh, including:

a. Operate the SBU Paseh mine by repositioning capital and improving mine operational management.
b. Operate the SBU Paseh Mine by handing over the management of the mine operations to a credible business partner selected through a stricly objective process.
c. Selling the SBU Paseh mine to the aother parties.

Table 3 SWOT Analysis of SBU Paseh's

	Helpful to achieve the objective	Harmful to achieving the objective
Internal Origin Attributes of The Organization	Strengths: 1. SBU Paseh's land ownership has been 100% curated, meaning that 22 ha more land is available 2. Reserves of raw materials for rock commodities in SBU Paseh's Quite large 3. Strategic location, because it is close to the location of the Cisumdawu TOLL GATE 4. Infrastructure is readily available 5. The quality of commodities produced is very good, and the market needs 6. Owned by Enterprise Government of West Java	Weaknesses: 1. More than 10 years the SBU Paseh's mine site has not operated properly 2. Lack of innovation in developing a business 3. Do not have experienced and qualified experts 4. Lack of adequate production machinery 5. The type of commodity to be sold must be processed first so that the production cost is quite high
xternal Origin Attributes of The Environments	Opportunities: 1. The need for andesite and Sand raw materials for infrastructure development is very high. 2. Around the mine site only SBU Paseh's mine location that is still unexplored, Most of it is idle 3. Easy to get opportunities and access to markets, especially government projects (regional and central) 4. Tax relaxation from local governments eases operational burden	Threats: 1. Mining administrative and licensing obligations are unavoidable every year, if ignored, it can result in the revocation of mining operational permits 2. Errors in mine management and the environment, can result in violations of the law, thus having a legal impact 3. Poor management has an impact on the social communities around the mine

1. Financial Review of Jasa Sarana

Green	EBITDA Positive, CFO Positive, Debt to EBITDA < 5x
Yellow	EBITDA Positive, CFO Positive, Debt to EBITDA > 5x
	EBITDA Positive, CFO Negative, Debt to EBITDA < 5x
Red	EBITDA Negative CFO Negative, Any Debt Amount
	EBITDA Negative CFO Positive, Debt to EBITDA > 5x
	EBITDA Positive, CFO Negative, Debt to EBITDA > 5x
	EBITDA Negative, CFO Positive, Debt to EBITDA < 10x/ Negative

Figure 3. Financial Indicator of Jasa Sarana

The management conducts financial analysis based on the Consolidated Financial Statements of the Company and Subsidiaries for the fiscal year ended December 31, 2021 which have been audited by the Public Accounting Firm Jojo Sunarjo and Partners, in accordance with Indonesian Financial Accounting Standards (SAK) with an Unqualified Opinion, as stated in report No. 00043/3.0401/AU.1/03/1624-1/1/IV/2022 dated April 8, 2022. The following are shareholder-directed financial performance indicators :

Table 4 Finance Ratio and Consolidated Financial Performance Indicators (in thousands of Rupiah) of Jasa Sarana in 2020-2021

PARAMETER PT JASA SARANA KONSOLIDASI	2021	2020
EBITDA	29.511.222	25.006.610
Cash Flow from Operating Activities(CFO)	9.585.111	1.202.302
Interest Bearing Debt (IBD)	79.422.053	127.509.805
IBD/EBITDA	3	5
*Status	Green	Yellow

The Company's Current Ratio in 2021 is still below the value of 1. This shows that current assets have not been able to cover the Company's short-term liabilities. In terms of Debt to Equity Ratio in 2021, it is still below the value of 1. This shows the Company's ability to fulfill all its obligations, both short and long term.

The Company's Net Profit Margin in 2021 reached 3.88%, this indicates that every

URAIAN	2021	2020	Δ
a	b	c	[b-c]
Rasio Lancar (x)	0,65	0,71	-8,05%
Return on Assets (%)	0,53	0,95	-14,84%
Return on Equity (%)	3,88	1,55	-50,55%
Liabilities to Equity Ratio (x)	1,23	0,62	29,08%
Marjin Laba Bersih (%)	1,88	7,85	21,72%

Rp.1,- of sales will generate a net profit of Rp.0.0388,-. Return On Asset (ROA) in 2021 increased by 29.08% from the previous year. This increase shows that the

Company is able to utilize assets effectively to generate profits. And Return On Equity (ROE) in 2021 increased by 21.72% from the previous year. The increase was due to an increase in the Company's net profit.

2. Asset Valuation of Paseh's SBU

Jasa Sarana in order to evaluate the potential of its business business has conducted an asset valuation by involving a Professional Consultant for Public Appraisal Services (KJPP). Based on the assessment of KJPP Nana & Mitra No. 056/NN/SPK/Vll/20 dated July 17, 2020, the assets owned by Jasa Sarana in SBU Paseh are as follows :

Table 5 Asset Valuation of Paseh's Mine Jasa Sarana in 2020

Uraian	Biaya Pengganti Baru	Indikasi Nilai Pasar
A. TANAH (244.431 m²)	Rp. 30.798.300.000,- *)	Rp. 30.798.300.000,-
B. BANGUNAN		
B.1 Bangunan Kantor	Rp. 103.300.000,-	Rp. 27.500.000,-
B.2 Bangunan Ruang genset	Rp. 36.200.000,-	Rp. 16.300.000,-
B.3 Bangunan Ruang panel	Rp. 10.900.000,-	Rp. 4.900.000,-
B.4 Bangunan Gardu PLN	Rp. 33.300.000,-	Rp. 15.000.000,-
SUB TOTAL B	Rp. 183.700.000,-	Rp. 63.700.000,-
Total	**Rp. 30.982.000.000,-**	**Rp. 30.862.000.000,-**

From this data, the Book Value of Facility Services Assets at Paseh Mine is IDR 30,982,000,000 and the Market Value of Assets is IDR 30,862,000,000. Valuation is assessed based on 3 approaches, namely Market Approach, Income Approach and Cost Approach.

The Market Approach generates an indication of value by comparing the asset being valued with identical or comparable assets and for which transaction or bid price information is available. In the Market Approach, the first step is to consider recent market prices of identical or comparable asset transactions. If there have been few or no recent transactions, consideration may be given to using the offered (for sale) or listed prices of identical or comparable assets, the relevance of this information needs to be clearly known and carefully analyzed. (ICC 15.1 and 15.2 VII Edition-2018).

Meanwhile, the Income Approach generates an indication of value by converting future cash flows to this value. This approach considers the income that an asset will generate over its useful life and calculates the value through the capitalization process. (KPUP 16.1 and 16.2 VII Edition-2018).

The Cost Approach, produces an indication of value using economic principles, whereby a buyer would not pay more for an asset than the cost of acquiring the

asset with the same or equivalent use, at the time of purchase or construction. (ICC 17.0 Edition VII - 2018).

Table 6 Commodity Reserve Estimation of Paseh's Mine

ESTIMASI TOTAL MATERIAL TERBONGKAR						
SOURCE	REGION	LITHOLOGY	TOTAL_VOLUME (BCM)	ELEVASI BUKAAN (MDPL)		LUAS (HA)
				TERTINGGI	TERENDAH	
BLOCK_MODEL_LITHOLOGY.bmf	pit_test_6_vlm.00t	TANAH PENUTUP	260.124,67	607	552	9,7745
		ANDESIT	228.274,00			
		SIRTU	980.289,66			
TOTAL CADANGAN KOMODITAS (AD+SIRTU)			*1.208.563,66*			

This valuation does not accommodate the variable mineral content of the Paseh Mine. Based on the Exploration Report document, a potential commodity of 1,208,563 BCM (1,450,276 LCM) was obtained. So if the potential mineral content is calculated based on the current market price with an average profit of Rp. 45,000/m3 (after deducting production costs and taxes), the commodity has a value of Rp. 65,262,420,000.

This means that the total valuation of the Paseh Mine when the Market Value Asset is added to the potential profit generated from the commodity reserves is Rp. 96,124,420,000.

3. Financial Performance of Paseh's Mine

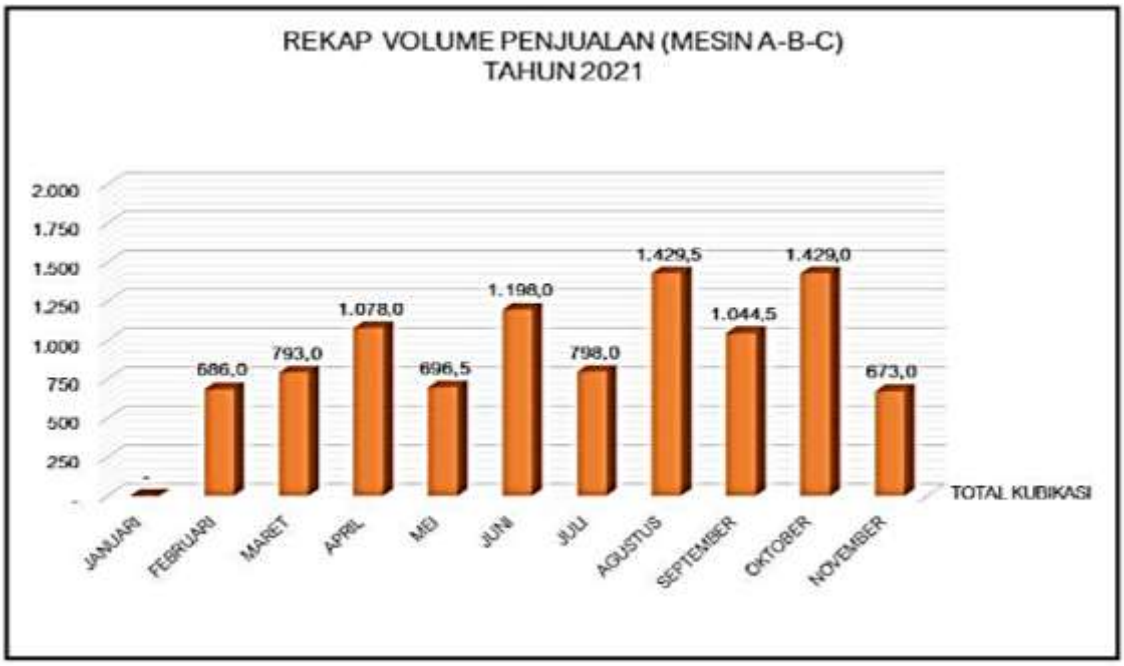

Figure 5 Graphic of Sales Product Paseh's Mine in 2021

Total production throughout 2021 reached 21,092.8 m3 for Rocky Sand (Sirtu), 11,873 m3 for Urug Land, and 120 m3 for Andesite. The lack of optimal production in 2021 was influenced by several factors, including the non-performance of managing partners, coupled with weather conditions and non-

optimal production machine settings. In addition to production and sales activities, if converted, the sale of Paseh Mine results in an income of IDR 609,290,000.

Table 7 Recapitulation of Sales Product of Paseh's Mine in 2021-2022

NO	BULAN	TAHUN					
		2021			2022		
		SIRTU (M^3)	TANAH (M^3)	ANDESIT (M^3)	SIRTU (M^3)	TANAH (M^3)	ANDESIT (M^3)
1	JANUARI	-	-	-	3,905.2	21.0	-
2	FEBRUARI	1,392.0	-	-	2,000.6	105.0	-
3	MARET	1,641.6	-	-	809.9	25,504.0	-
4	APRIL	2,385.6	-	-	752.0	17,092.0	-
5	MEI	1,449.6	-	-	3,073.0	15,534.0	-
6	JUNI	2,160.0	-	-	9,748.0	36,774.0	-
7	JULI	1,459.0	-	-	23,189.1	98,904.0	-
8	AGUSTUS	2,712.0	-	-	17,729.7	87,288.0	-
9	SEPTEMBER	2,092.0	-	-	-	-	-
10	OKTOBER	2,967.0	1,869.0	-	-	-	-
11	NOVEMBER	1,405.0	1,442.0	-	-	-	-
12	DESEMBER	1,429.0	8,562.0	120.0	-	-	-
TOTAL		**21,092.8**	**11,873.0**	**120.0**	**61,207.5**	**281,222.0**	**-**

The Company, as one of the shareholders of PT Citra Karya Jabar Tol (BUJT Cisumdawu Tollroad), contributed in fulfilling the need for approximately ± 9,000 m3 of backfill land from the mine site for the construction activities of Section 4 of the Cisumdawu Toll Road Section Cimalaka-Legok in 2021. In 2022, Paseh Mine succeeded in increasing production and sales compared to 2021, total product sales reached 61,207.5 m3 for SIRTU, and 281,222 m3 for Upland.

Root Cause Analysis

a. Kepner-Tregoe (KT) Problem Analysis

This section is to analyze the ongoing situation and what caused the Company's financial performance to be gradually characterized by using a Fish Bone Diagram. This will allow decision makers to identify, describe, analyze, and solve problems, including recognizing situations where they go wrong. Once the Cause-and-effect diagram is constructed, the analysis will continue to find out which potential causes are actually contributing to the problem (Jacobs & Chase, 2018: 305).

From the market side, the economic trend in 2022 continues to decline due to the increase in fuel prices. This increase was triggered by rising world oil prices due to unstable global politics, forcing the government to stop subsidizing fuel. In addition, with fuel prices getting higher, and of course falling domestically, the gas pricing regulation issued last year made fossil energy prices the worst. These challenging conditions not only impacted the Company, but also oil and gas companies around the world. They are forced to reposition their respective business strategy plans and if necessary to take extraordinary measures to survive these conditions.

Pleased with the Stakeholders, the Company has been struggling with strategic misalignment leading to uncertain internal direction and creating management inefficiencies due to short-term management tenure (i.e. Directors and/or Board of Commissioners can be changed from their positions in less than

one year so management does not have enough time to prove or demonstrate the mission or plan they are building.

The decline in production was also caused by project delays that occurred due to poor planning or mismanagement of the project, the lengthy bureaucracy of the land acquisition process and coordination inefficiencies in most of the new people working on the project.

The decline in revenue in line with the previous Production issues (i.e. lower production) and exacerbated by the tight budget policy that tightened Capex to find new sources contributed to the decline in the Company's net profit. If this financial performance cannot be immediately strengthened, the Company will face pressure on cash availability in particular and difficult financial viability in general in the future.

b. Fishbone Analysis

This final project uses Fishbone Analysis (FBA) to verify the actual causes of the possible causes from the KT problem analysis worksheet. The root cause analysis results from the FBA will complement each other with the Kepner-Tregoe problem analysis results. FBA details can be seen in Figure 6.

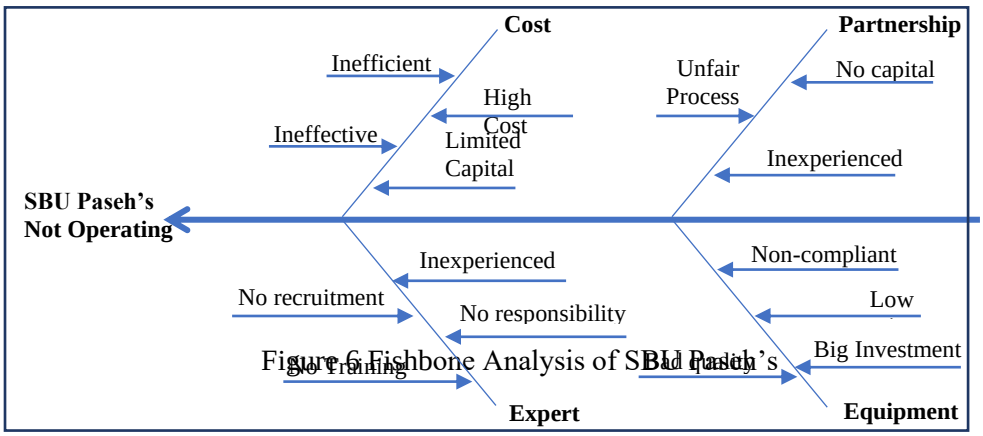

Figure 6 Fishbone Analysis of SBU Paseh's

Using Fishbone problem analysis, we can identify the possible causes of SBU Paseh's non-operation as follows:

1. Cost:

   Limited Working Capital Support from the Parent Company (Jasa Sarana), makes SBU Paseh's unable to freely develop its business. So that impovement is needed in running a business, one of which is by cooperating with partners. Indirectly, involving other parties can reduce company profits, besides being prone to business fraud.

2. Partnership:

   Mistakes in selecting business partners, starting with the wrong mechanism established to select partners who are credible, experienced and have sufficient working capital.

3. Expert:
   Inexperienced skilled labour capacity and mining operations can cause disruption to business operations. So that work patterns become ineffective and inefficient, and have an impact on high production costs..
4. Equipment:
   Determining the right type of production machine is also important. The compatibility of work in the Mining Pit with production machinery determines how effectively business operations are carried out. Not to mention that investment in production machinery in the form of a Crushing Plan requires high investment costs. So that errors in determining planning in production machinery, have a systematic impact on production activities.

The brainstorming method was used to find out several possible causes by involving several subject matter experts (SMEs) because the technical experts consist of several technical experts who have competence and authorisation in decision making at SBU Paseh's to make Fishbone Analysis. There were 6 (six) subject matter experts involved in making the FBA. Table 8 shows the list of subject matter experts to determine the root cause analysis at SBU Paseh's.

Table 8 The list of subject matter expert to determine root cause analysis

NO	TECHNICAL EXPERT	COMPANY	JOB DESCRIPTION
1	President Director	Board of Director	Establishing the policy direction of and the company's target in developing SBU Paseh's
2	Head of Strategic Business Unit Division	SBU Paseh’s	Development of partnerships and business mechanisms
3	Head of Mining Engineering	SBU Paseh’s	Handling various matters related to the production and sale of the commodities produced. Responsible for the implementation of good mining practice
4	Board of Directors Experts	Holding	Assigned to the preparation of Feasibility Studies, Mining Exploration Plans, and dealing with Paseh mining permits and reports
5	Financial Support	Holding	Placement of Capex and Opex that do not proportional and effective
6	Crusher Technician	SBU Paseh’s	Responsible for production machines, related to the type of machine, machine placement and machine capacity that must be applied in the production area

Determine alternative solution of business problem

After the root of the problem is obtained, the next step is to develop recommendations and alternative solutions to solve the problem. In this study, the Brainstorming and Focus Group Discussion method was used to find out some

recommendations and alternative solutions by involving Experts and Mining Management of SBU Paseh/BOD Jasa Sarana who have competence and authorisation in decision making in SBU Paseh's, with a list that can be seen in table 9

Table 9 The alternative solution for root cause of problem

Root cause of Problem	Alternative Solutions
SBU Paseh's operational failure was caused by mistakes in business management, ranging from disproportionate and ineffective capital placement, mistakes in determining partners, and not having skilled labour and production machinery as needed.	• Operate with improvement, by placing the amount of Opex and Capex proportionally and in accordance with feasibility studies, hiring competent experts, and increasing investment • Operate with partnership to other parties, by conducting objective partner beauty contests • Selling Assets to other parties

The consequences of the 4 (four) alternative solutions above can be seen in table 9 where each alternative has consequences for the performance assessment of SBU Paseh's and Jasa Sarana as the Parent Company. The consequences can be in the form of costs, burdens and responsibilities to shareholders, namely the West Java Provincial Government..

Table 10 Consequences of alternative solutions

Alternative Solutions	Consequences	Remarks
Operate with improvement	1. Jasa Sarana is obliged to place additional capital to support reinvestment needs and operational costs arising from an increase of IDR 10-15 Billion 2. Implement good mining practices and strict supervision so that the GCG (Good Corporate Governance) process is carried out 3. Recruit additional experts who are experienced in supporting mining operations 4. Build a crushing plan (product processing machine) with a capacity of >150 MT/hr	Implemented by SBU Paseh internally with the support of Jasa Sarana
Operate with partnership to other parties	1. Set up bidding facilities and rules that protect SBU Paseh's partnership bidding process. 2. Prepare clear and measurable requirements, such as partnership capital readiness, mine management experience, heavy-duty ownership,	Implemented by Jasa Sarana as Holding Company

Alternative Solutions	Consequences	Remarks
	and readiness to invest in production machinery. 3. Apply deposit financing by designated partners 4. SBU Paseh must prepare good management control	
Selling Assets to other parties	1. Prepare and inventory asset data 2. Valuing assets through the services of the Valuation Service Office (KJPP) 3. Prepare legal umbrella and rules that have the basis for selling assets 4. Coordinate with shareholders	Jasa Sarana involves the Bureau of Economy and Investment West java Government

Analysis of the pros and cons of alternative solutions carried out by Subject Matter Experts (SMEs) as supporting data for selecting the best solution, can be seen in table 10.

Table 11 Pro-Cons analysis of alternative solution

Alternative Solution	Pro	Cons
Operate with improvement	• The company became more focused on improving SBU Paseh's management. • Profits obtained are fully for the company • Increased shareholder confidence in the company • The consequences of risk remain with the owner of the business licence and cannot be avoided.	• The company did not have enough capital to fund Paseh's SBU • Increased risk on additional assets, such as maintenance and fixed costs • The company does not have experienced experts • There is a time limit on SBU Paseh's Mining Business Licence • The consequences of mine management are so complex that it will increase the number of risks, such as social community, and environmental management.

Alternative Solution	Pro	Cons
Operate with partnership to other parties	• The company does not need to make additional working capital and additional investments. • Good co-operation can accelerate the company's profitability • Business risks and liabilities of the mining licence can be shared proportionally with the selected partners.	• The company needs time to go through the process of selecting partners, and it is not easy to find partners who are competent, experienced, and have sufficient capital. • Risk of mistakes in choosing partners, causing longer SBU Paseh's operations, and adding new problems • There is no guarantee that new partners can run the business well
Selling Assets to other parties	• The company does not need to raise additional capital • The company will get additional fresh funds from the sale of assets, at least the company will get 30 billion • Asset sale is a solution to overcome the threat of economic recession in Indonesia • Mining regulations are getting more complicated, with increasingly complex obligations aligned with reduced profit potential for mining entrepreneurs	• The company will lose potential regular profits from SBU Paseh's • Not easy to get credible buyers • Not easy to get permission from the Share Owner (West Java Provincial Government) • Lowering the Company's image in the eyes of the public • Revenue from asset sales is often in the spotlight of the State Audit Board

Criterion of Decision Making

Decision-making involves many criteria and sub-criteria that are used to rank alternatives to a decision (Saaty, 2008). For SBU Paseh's, driving sustainable revenue growth for the Company through prospective and value-added business development is the main objective.

In verifying the criteria and sub-criteria to be used in decision making, the author conducted Semi-Structured Interviews with several respondents (Wong & Li, 2008). Not all respondents were involved in the discussion, as it requires expert views and specialised understanding in AHP to verify the criteria. These are the criteria and sub-criteria that have been verified with several respondents.

1. Profitability
2. Operationability
3. Continuity
4. Market

The following is an explanation of the criteria selected in Table 20:

Table 12 Criteria description for decision making of SBU Paseh's

Criteria	Description
Profitability	Profit is tangible (financial), and benefit is an added value that benefits the company intangibly (risk reduction).
Operability	Mine Operations in implementing good mining practice and good corporate governance, in ensuring business operations run well.
Continuity	Business continuity, in maintaining opportunities where SBU Paseh's can be a captive profit potential for the company
Market	Market Availability of Rock Commodities and their derivative products in fulfilling the needs of infrastructure development in West Java

Conclusion

After conducting an exploration of the business problem and the proposed business solution, the following research conclusions are provided to answer the research questions: 1. *What is the cause of the problem of non-operation of SBU Paseh?* Using Kepner-Tregoe problem analysis and Fish Bone Analysis. The brainstorming method is used to find out some possible causes by involving several subject matter experts (SMEs) because technical experts consist of several who have competence and authorisation in decision making at SBU Paseh's to make Fishbone Analysis Through the FBA method there are 4 root causes, including: 2. *What is the Alternative solution to operate SBU Paseh?* SMEs who were involved in analysing the root cause were also involved in the Focus Group Discussion in determining the Alternative Solution. There were 3 (three) Alternative Solutions.

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