

CHAPTER 1 – INTRODUCTION

1.1 Background

PT XYZ is a company engaged in the field of mining quarry and earthwork construction contractor based in East Java. This company is a joint venture between PT ABC and PT DEF. PT ABC is a state-owned company as the largest cement producer in Indonesia holds 55% of the shares, and 45% rest of shares holds by PT DEF private national company which the largest heavy equipment distributor in Indonesia . PT XYZ as a company who engaged in the mining and construction services business, it faces a very tight and competitive market. The cement industry, which is the largest revenue contributor till 90%, is experiencing pressure due to competition in cement prices as well as low factory utilization, which is only 54% of installed capacity.

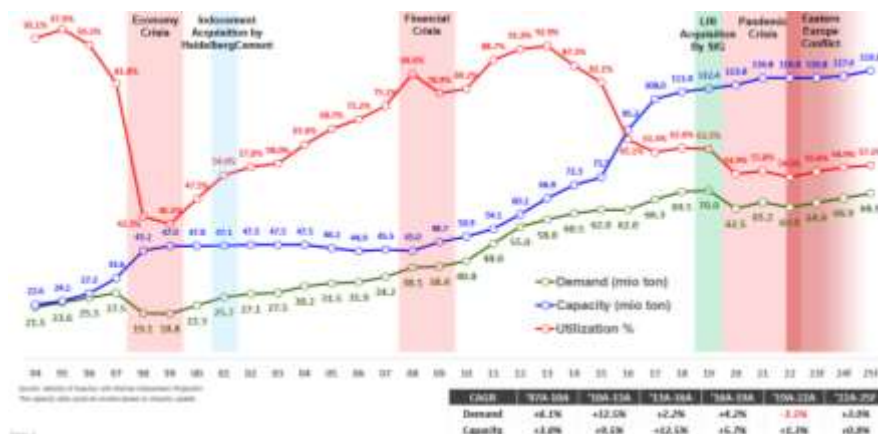


Fig 1.1 Cement Demand and Installed Capacity in Indonesia

From the data Indonesia cement association refer to fig 1.1 cement demand and install capacity in Indonesia, describe that the demand predicted will match with installed capacity in 2031 as long as the annually growth industry around 4-6% and moratorium for new cement factory.

PT XYZ has an important and strategic role in the main business model concept's of PT ABC which occupies as the cost efficiency driver and is directed to become a mining consolidator in the group. This means that PT XYZ must be efficient and productive in his operation.

Currently PT XYZ has 7 active projects ; 4 projects within the PT ABC group area as quarry mining contractors and 3 projects construction outside of the group work in land preparation for construction. One of the four projects in PT ABC, namely project-X are the most suffered and occupied the most crucial position. Project-X of PT XYZ located in West Sumatra, working as a limestone miner to full fill the supply of limestone to crusher cement factories as a raw material for cement manufacturing. In project-X, as stated in contract the target of 18,000 tpd (tons per day) or 540,000 tpm (tons per month) during the first semester and 25,000 tpd or 750,000 tpm during the second semester.

Contract	2023							Average	Target
	Jan	Feb	Mar	Apr	May	Jun	Jul		
VOLUME	304.936	429.320	507.581	484.156	315.765	441.986	531.321	430.724	540.000-750.000
Prod. Tambang									
- PLS ton	118	-	20.748	26.233	118.524	120.764	161.651	457.014	
- PNB ton	261.784	363.646	444.432	393.042	173.639	362.970	328.463	2.225.975	
- PLT ton	43.038	49.639	28.710	64.901	23.602	48.081	37.313	295.274	
- Development ton	-	18.255	13.691	-	-	1.332	1.904	36.802	
REVENUE	2.393.748	3.370.162	3.984.511	3.800.625	2.478.755	3.469.590	4.170.870	3.381.180	
Prod. Tambang									
- PLS Rp	910.600	-	162.871.800	205.756.350	930.413.400	1.018.647.400	1.268.940.350	3.587.559.900	
- PNB Rp	2.055.004.400	2.638.923.100	3.488.791.200	3.085.379.700	1.363.094.150	2.064.385.350	2.578.356.050	17.474.903.750	
- PLT Rp	337.832.600	385.509.150	225.373.500	509.488.550	185.275.700	377.514.350	292.907.050	2.317.900.900	
- Development Rp	-	141.731.750	107.474.350	-	-	9.043.250	30.646.400	288.895.700	
Daily Production ton	10.515	15.901	16.374	17.291	14.244	15.241	18.976	15.506	18000-25000

Table 1.1 Monthly production achievement at project-X

Refer to table 1.1 monthly production achievement at project-X, from the production target of 540,000-750.000 tons per month, average only 430.723 tons per month was achieved. PT XYZ was only able to achieve 57% production of the demand set target. Because it failed to full fill the production achievement made the financial performance of project-X become negative.

Desc	Project-A		Project-B		Project-C		Project-X		Project-AA		Project-BB		Project-CC		Total	
	Actual	RKAP	Actual	RKAP	Actual	RKAP	Actual	RKAP	Actual	RKAP	Actual	RKAP	Actual	RKAP	Actual	RKAP
REVENUE	141.469	162.820	33.386	46.498	30.144	25.400	23.667	35.269	738	-	51.041	15.388	16.159	18.892	282.664	302.464
HPP	543.090	168.432	38.206	44.218	22.424	17.871	22.895	17.828	1.523	708	27.181	16.734	15.801	15.958	272.120	281.450
LABA KOTOR	-	2.530	-	5.822	-	3.180	-	771	-	725	-	708	-	3.860	-	10.584
OPEX	30.616	16.492	2.775	2.484	1.280	1.169	966	1.550	33	-	1.386	765	682	878	17.589	22.354
LABA USAHA	33.146	20.224	1.595	1.083	6.480	6.530	195	15.891	790	708	2.594	2.514	423	240	7.845	1.339
PENDAPATAN (BEBAN) LAINNYA	1.238	1.232	88	222	503	222	1.691	149	458	-	305	517	420	223	6.478	1.551
LABA SEBELUM PAJAK	34.373	21.448	1.507	1.226	5.977	6.196	1.886	15.741	1.218	708	2.328	997	843	463	11.523	2.893
Margin Laba Sebelum Pajak	-10,2%	-23,2%	-2,8%	-2,6%	19,8%	24,4%	-8,0%	44,6%	-252,6%	0,8%	7,5%	-6,2%	-5,2%	-2,8%	-4,1%	-1,0%

Table 1.2 Year to date July financial performance project-X

Based on the data in table 1.2 year to date July financial performance project-X, several projects are indeed experiencing minuses also. But the minus of other projects is due to decreased of demand. But in project-X the demand was very high, but the revenue only reached Rp. 23.67 billion of the target of Rp. 35.27 billion only 67% from budget plan due to poor of production achievement as mention above, resulting in financial performance profit before tax minus (-8,0%) or (-1,88) Bio.

Project-X also so crucial because its production target is the 2nd largest of all PT XYZ projects. So that the risk becomes significant and has a strong influence on the overall performance of PT XYZ.

Juni											
No	Kategori Risiko	Risk Event (Nama Risiko)	Last Month			Residual			YTD Juni		
			C	L	Tingkat Risiko	C	L	Tingkat Risiko	C	L	Tingkat Risiko
1	Market Dynamic	Perubahan permintaan produksi	5	4	20E	4	4	16H	5	4	20E
2	Operational	Risiko Tambang	5	4	20E	5	3	15H	5	4	20E
3	Operational	Talent Availability & Fulfillment	5	4	20E	2	3	6M	5	4	20E
4	Financial	AR overdue	3	4	12H	3	2	6M	3	4	12H
5	Financial	Perpajakan	1	4	4L	1	3	3L	1	4	4L
6	Strategy	Keterlambatan Capex	5	4	20E	4	3	12H	5	4	20E
7	Operational	Stock Clay	2	4	8M	2	3	6M	2	4	8M
8	Cyber Risk	IT Incident	5	4	20E	2	3	6M	5	4	20E

Table 1.3 Risk category of project-X

Refer to table 1.3 risk category of project-X, even in risk mitigation mapping the risk of Operational-Mining (production and readiness equipment) is at a rating score of 20E, which means extreme risk. This extreme risk is because the potential for occurrence is enormous and has the effect of eroding EBITDA of up to 4 billion rupiah with three other projects. That's why Project-X is so important to carry out as object research. On the other hand, PT ABC as holding which majority of shares PT XYZ implements a selective policy and tightens investment of capital expenditure

(capex) so that it has an impact on the difficulty of fulfilling investment in production equipment.

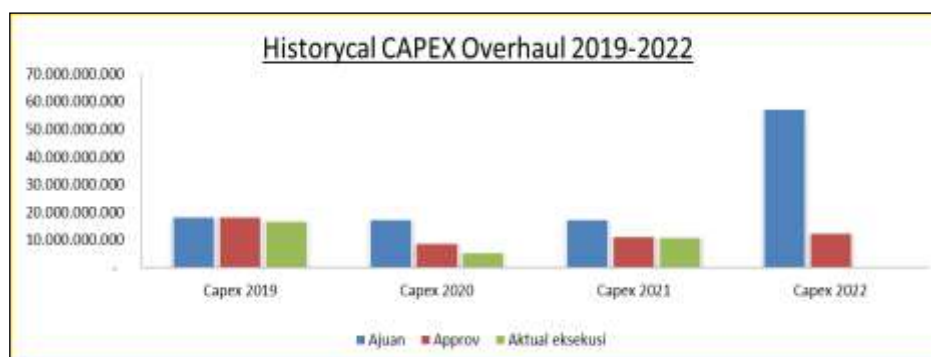


Fig 1.2 Capex story of PT XYZ

Refer to fig 1.2 capex story of PT XYZ, the average holding company only approves less than 55% of the proposed investment budget plan for the current year for the need to replace the main components of production equipment. Due to limited capital expenditure policy, companies have difficulty providing equipment if they have to invest. So the company have to look for an alternative to full fill equipment rather than a financial lease or credit debt, either bank credit or internal group debt due to covenant of PT XYZ to bank and shares holders.

Overall, PT XYZ's consolidate financial performance is very depressed due to business conditions experiencing pressure from the market. In the financial report for ytd July 2023, total all seven projects production target volume only achieved 83,3%, 14,7 mio ton from the target 17,7 mio ton. And this has touched fix costs, where the break even point was at IDR 45 Bio/month, during the first semester the average was only recorded at IDR 39.6 Bio/month due to decline of the demand. However, in terms of cash flow and some financial ratios, PT XYZ is still able to maintain it well. However, there is always an opportunity in some project to improve that can generate a significant positive impact, namely Project-X, because demand for this project is still very high.

RASIO	Covenant	Target	2023	2022	Polariza- tion	(2 : 1)	(2 : 3)
		(1)	(2)	(3)			
ACP (Days)		155	98	132	Min	63%	74%
APP (Days)		184	158	151	Max	86%	105%
AIP (Days)		9	9	12	Min	100%	75%
CCC (Days)		-20	-51	-7	Min	255%	729%
Current Ratio (X)	Min 1	1,04	1,08	1,16	Max	104%	93%
IBD (Rp mio)		4,304	4,304	14,095	Min	100%	31%
DER (X)	Max 2.5	2,5	3,02	2,02	Min	121%	150%
IBD to Equity (%)		0,03	0,04	0,10	Min	133%	40%
EBITDA to Interest (%)	Min 1	7,06	4,99	2,56	Max	71%	195%
Debt To EBITDA (%)		13,08	15,79	31,82	Min	121%	50%

Table 1.4 Ratio covenants of PT XYZ per July 2023

Referring to table 1.4 ratio covenants of PT XYZ, it explains that the ratios Company is still bankable even though it is in a quite depressed position and still meets the current loan facility covenants. However PT XYZ need carefully to manage remind business operation due to covenants are at a critical point.

Among of them :

1. The current ratio is at 1.08, approaching the critical point, where last year it was still 1.16.
2. Debt to EBITDA 121% exceeded plan target.
3. Apart from that, in separate data, return on assets (ROA) and return on equity (ROE) of PT XYZ are in a minus position. With the conditions of the ratio covenants, PT XYZ is in a position have to manage carefully of the liquidity, working capital and debt.

1.2 Research Problems

PT XYZ in project-X had negative financial performance, reaching minus Rp. 1.88 Billion or equivalent -(8%).

1.3 Research Objectives

The main objective of this research is PT XYZ carries out project improvements to increase the production which affected to positive financial performance in the X-project.

1.4 Significant of Study

In this research there are 2 things done for the research object, namely:

1. Technical aspects of operational engineering, namely in terms of determined fittest and matching fleet.
2. Procurement aspect for production equipment.

We carried out 2 aspects of research because project-X required alternative solutions in terms of improving technical operations in the field and providing production equipment. Then we compare this research from the operational technical side and from the procurement mechanism side. The following is a significant study comparison from the technical operation side:

Requirements	My Research	Partisipasi Tampubolon, Nalom D. Marpaung, dan Raimi Sihang	
	Equipment readiness and improve gradeability for better cycle time	Performance evaluation of loading excavation and transport equipment production achievement at PT Timate Benua Bentayan village, Tongkilir district, Banyuwangi South Sumatra, Vol 18 No 2, Jan 2023.	
Mining sector	Quarry, galian C	Coal concession	
Mining Material	Lime stone	Crushed (granite, andy)	
Equipment model	Komatsu PC850 & Scania P410 8x4	Komatsu PC1250-7 and HD465-7	
Bucket capacity	5 m3	5.23 m3	
Vessel capacity	DV 25, maximum 32 ton (SI) due to SP policy	Maximum 55 ton (SI)	
Haul distance	2.200 - 4.200 m	1.000m	
Gradeability	Average 11.27% (5.58% - 34.5%)	Assumption good	
Frame work	Time Motion Study	Sampling	
Objective research	Improve productivity to improve finance performance become (+).	Only as a reference for future improvement	
Parameter & variable	The parameter and variable used refer to the mathematical and theoretical approaches according to the guideline handbook	None of the parameter and variable used are just stated.	

Table 1.5 Significant study of technical operation improvement

Refer to table 1.5 significant study of technical operation improvement, from the side of the equipments used as the object of research is different, but there are some things that make a significant difference : that in our research takes into the real conditions of hauling road based on our time motion study and optimum fleet recommendation (OFR) by vehicle optimizer (VO), but another study refer to assumption only. Because this can affect the validity of the research and can help to identify improvement efforts apart from adding equipment.

Meanwhile to speed up the readiness of our equipment, we use the "off balance sheet operating lease with option purchase" scheme. This scheme can be carried out by implementing PSAK 107 (2021) that we can mentioned as IMBT (Ijarah Muntahiyah Bittamlik). Which is Syariah financing system from one of the National Private

Banks, PT BPR. In the accounting standardization rules applying PSAK 107 concerning Ijarah Accounting has been ratified by the IAI Syariah Accounting Standards Board on October 7 2021.

This financing scheme is very competitive compared to the operating lease (rent) mechanism and financial lease scheme. The comparison of research from a financial scheme aspect is as follows :

Requirements	PSAK 107 (2021) IMBT	Akhmad Ryan Dhiya 'Ulhaq	Garyn Arianova Sugiarto; Agung Dinarjito
	My Research	Literature study regarding the impact of implementing PSAK 73 on fiscal corrections and taxation in Indonesia from tenant's side , 23 Oct 2021	Analysis of the application of PSAK 73 at PT XYZ, Vol 2 No 2 2022
Object	Heavy Equipment	Generator set w/ Diesel powered, etc.	Appartment & mobile equipment.
Duration of scheme	5 years	4 Years (minimum rent 3 years according to the clause 3 KMK-1169/1991).	1-3 years, base on asset clasification.
Economical life	8 Years	5 years	5 years & more than.
Scheme Financing	Operating Lease with Option (monthly rent)	Operating lease purchase option, so classify as financial lease (SGU)	Financial Lease (under operating lease for <1 year)
Liquidity Condition	Availabel/Not Availabel as operation decision	Capex mechanism	Capex mechanism
Treatment Accounting :			
a. Profit and Loss	As rental cost	Depreciation base on economical of life (Straight line)	- As rental cost (less than 1 year) - Depreciation (more than 1 year)
b. Balance Sheet	Off balance sheet, Accounts Payable	On Balance Sheet, Long term debt/liabilities (SGU/Asset usage right)	- On Balance Sheet, as asset prepaid w/ montly ammortisation & depreciation for mobile equip. - Long term debt/liabilities (SGU)
c. Accounting treatment Ref.	PSAK 107	PSAK 73	PSAK 1 & PSAK 73
Taxation	Not corrected	Need fiscal correction	Need fiscal correction
Variations in principal payments	- Monthly - Quarterly - Stage-up repayments	Monthly	Monthly
Initial funding	Needed/Not needed	Needed	Needed
Financial ratio :			
a. Current ratio (min. 1)	High	Low	Not mentioned
b. DER (maks 2.5)	Low	Increase	
c. Ebitda (min. 1.1)	Low	High	
Asset status	Right of ownership as asset	Right of ownership as asset	Rent & Right of ownership as asset
Cost responsibility	All Maintenance cost addressed to PT XYZ	- Maintenance cost addressed to lessee - Repair cost >20% addressed to Lessor - Repair cost only 1st 6 month for another	Not mentioned
Interest	Stated, competitive rate	Not implicate stated (incremental charge 6.0%) & stated 6,25%-8%	4,6%-6% per-annum

Table 1.6 Significant study of procurement of asset

Refer to table 1.6 significant study of asset procurement, the comparison if we implement PSAK 107 (2021) compare to PSAK 73, there are a number of benefits to be gained by implementing PSAK 107 (2021). Among them are: a longer duration scheme and variations in principal payments are available so that they can adjust to the company's cash flow capabilities. Besides that, with PSAK 107 (2021) the accounting is off balance sheet so that it can maintain financial ratios in accordance with the covenants. And most importantly because it acts as an operational decision mechanism so that the providing of equipment can be carried out more quickly as long as the terms and conditions have been agreed upon. And implementing PSAK

107 (2021) become a solution for companies that have limitation due to capex policy tightening.

1.5. Research Questions

Several questions will arise in this research:

1. Is Optimum Fleet Recommendation (OFR) with Vehicle Optimizer (VO) the most accurate method for determining the number and type of fleet?
2. Why aren't many mining companies using IMBT PSAK 107 (2021) compare than operating lease PSAK 73 ?
3. Is any certain condition for the company utilize those scheme facility ?

1.6 Hypothesis

Improving equipment readiness and operational aspects with precise data analysis will improve operation production and financial performance in project-X.

1.7 Research Limitation

The researcher conducted the study only at project-X, Indarung, Padang, West Sumatra – Indonesia with the reason and background has explained in this Chapter 1. In project-X the limestone mining work area with a production target of 540,000-750,000 tons/month as stated in contract agreement, with existing condition using dump truck 24 units Scania P360 B6x4 DV17 with a rated payload vessel of 23-27 tons. Combined with excavator heavy equipment 3 units PC300LC-8M0 with bucket capacity 2,3 m³ and 3 units PC400LC-8 bucket capacity 2,8 m³. The equipment used for this research improvement is former investment in the previous period which will be used as the object of research to see whether the specifications of this equipment meet the operational needs of project-X, both in terms of quantity and technical specifications. And activity improvement with new equipment will begin since July 2024.

These heavy equipments are operated by operators who are quite experienced and well trained, and even certified who have worked for 5 years on the project. And in this research, the financial aspects are only highlighted in terms of production achievements which have an impact on revenue and profitability, also the covenants.

With ignoring about aspects of operational costs and its efficiency program, because this aspect was carried out in the previous period when the project was running in the first 7 months, namely : tire consumption reduction program, fuel index improvement and people development to improving manpower productivity. But, however the production getting improve but not significant impact. And also from the company's balance sheet point of view, the condition is tight and however the company cash flow is still positive.