

CHAPTER 4 – RESULTS AND DISCUSSIONS

4.1 Initial Evaluation

This study will initially collect data and evaluate the customer service levels at PT XYZ Medan Branch by analyzing the firm's OTIF. An examination of the impact of the OTIF rate on company sales follows. Then, it explores opportunities to increase sales by increasing OTIF rates. The appropriateness in choosing actions in this study will consider the factors that affect customer service satisfaction, namely lead time delivery and availability of parts that can help customers to reduce breakdown time and have good unit productivity to increase product trust from customers and get repeated orders.

4.1.1 Customer Database and Historical Sales

PT XYZ has 196 customers from 4 sectors. The sector is gold mining (MNG), agribusiness (AGR), construction (CON) and industrial (IDT) from 196 customers divided into three customers gold mining (MNG) sector, 12 customer industrial (IDT), 62 customer agribusiness (AGR), 119 customer construction (CON). The contribution of a total customer in the mining sector is just 2% but gives the most significant sales contribution of about 44%, as shown in Table 4.1.

Sector	Total Customer	% Customer Contribution	Sales	% Sales Contribution
MNG	3	2%	17,4	44%
IDT	12	6%	0,5	1%
AGR	62	32%	11,8	30%
CON	119	61%	9,9	25%
Total	196	100%	39,5	100%

Table 4.1 Percentage of Customer Sector and Sales Contribution

(source: Company Data,2023)

PT XYZ has three customers from the gold mining sector at the Martabe site, and the sales from the Martabe site are 17,4, which is divided into three customers: PT EFG is 6,5; PT HIJ is 10,79; PT KLM is 0,01. PT EFG and PT HIJ are the top two sales contributions at PT XYZ, as shown in Table 4.2.

No	Customer	Sector	Sales	% Sales Contribution
1	PT HIJ	MNG	10,79	27%
2	PT EFG	MNG	6,50	16%
3	xxxx	AGR	1,50	4%
4	xxxx	AGR	1,00	3%
5	xxxx	AGR	1,00	3%
6	xxxx	CON	0,92	2%
7	xxxx	AGR	0,87	2%
8	xxxx	CON	0,76	2%
9	xxxx	AGR	0,71	2%
10	xxxx	AGR	0,64	2%
11	Others		14,81	37%
TOTAL			39,50	100%

Table 4.2 Percentage of Customer and Sales Contribution
(source: Company Data,2023)

4.1.2 On-Time In Full (OTIF Rates)

On-Time In Full (OTIF) rates are KPIs between PT XYZ and customers to evaluate the performance of PT XYZ towards the customer's purchase order (PO). OTIF rates calculate two aspects: (1) In-Full is about fulfilment of spare parts, and (2) On-Time is about lead time delivery of spare parts based on customer request delivery date (CRDD). CRDD at PT XYZ is three days. Parts will be said OTIF if parts are ready (In-Full) and lead time delivery is not above three days (On-Time). If parts are not on-time or not in full, that is not OTIF. OTIF rates can be calculated using equation (4.1).

$$OTIF\ Rates = \frac{Total\ Item\ OTIF}{Total\ Item} \times 100\% \quad (4.1)$$

This research collected OTIF rates for 12 months at PT XYZ as shown in Figure 4.1.

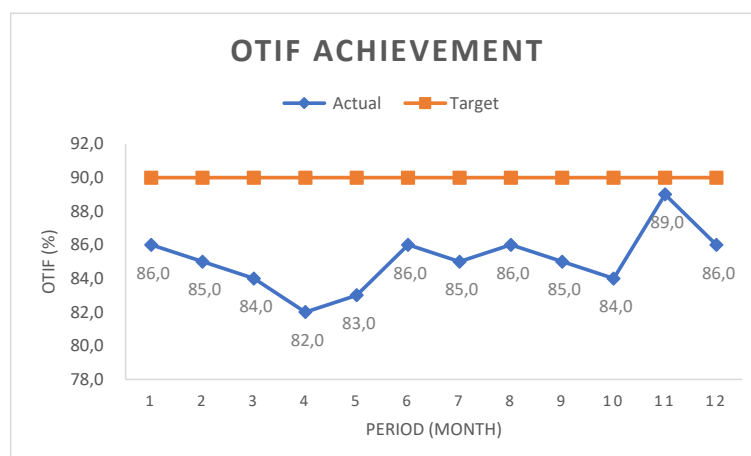


Figure 4.1 OTIF Rates Achievement at The Martabe Site
(source: Company Data,2023)

OTIF rates at PT XYZ are 85%, as shown in Table 4.3. A gap of 15% is not achieved from the target 90%. Item not achieved divided into two sections: (1) 11% item not on-time and not in-full; (2) 4% item not on-time but in-full as shown in Table 4.3

OTIF Item	On-Time Item	In-Full Item	Total Item	Percentage
No	No	No	838	11%
		Yes	322	4%
Yes	Yes	Yes	6325	85%
Total			7485	100%

Table 4.3 OTIF Rates Achievement at The Martabe Site

(source: Company Data,2023)

4.1.3 Availability Parts

Availability is the ability of supply from our inventory to demand. Parts will be available if parts are ready at warehouse when the demand comes. In this research, availability has been collected for 12 months period at PT XYZ, as shown in Figure 4.2

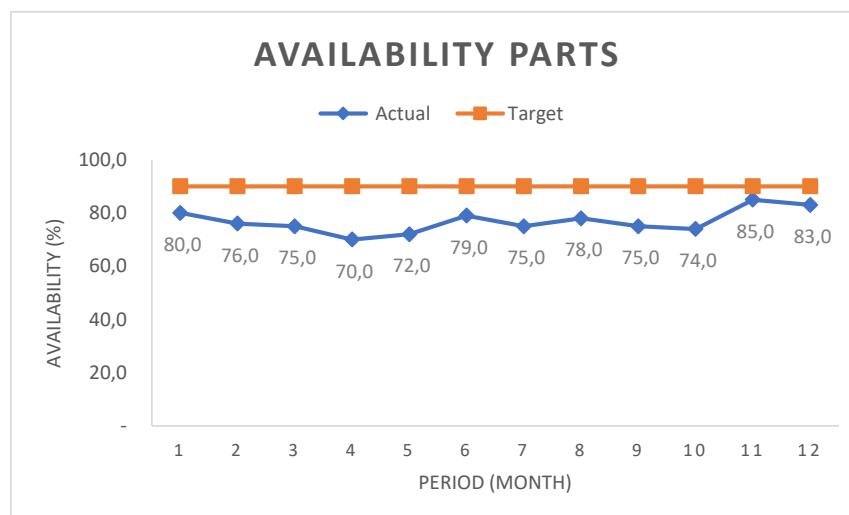


Figure 4.2 Availability Parts Achievement at The Martabe Site

(source: Company Data,2023)

4.1.4 Historical Demand

Historical demand is essential data to be collected in this research because this data can figure out customer demand at PT XYZ. This data will be used for calculating demand forecast and be the foundation for selecting items to create list item backup (LIB) for maintaining stock. Historical demand for this research has been collected for 12 months period, as shown in Table 4.4

NPN	DESC	11.2022	12.2022	01.2023	02.2023	03.2023	04.2023	05.2023	06.2023	07.2023	08.2023	09.2023	10.2023
01643-22245	WASHER	112	175	196	217	175	147	385	199	140	179	350	193

Table 4.4 Historical Demand for Washer

(source: Company Data,2023)

4.1.5 Customer Survey by Questionnaire

This research also does customer surveys by questionnaire to get customer's voices. There are three questions for this questionnaire, as shown in Table 4.5. The questionnaire was spread to 12 correspondents from customers at the Martabe Site.

Number	Question	Answer			
1	What's brand do you prefer?	Genuine 1	Local Shop 2		
2	What is the important things for buying parts?	Parts Ready but More Expensive 1	Parts Cheaper But Need Time for Delivery 2		
3	How about delivery speed from PT XYZ?	Very Slow 1	Slow 2	Fast 3	Super Fast 4

Table 4.5 Questionnaire

(source: Customer Sampling,2023)

The result of this questionnaire for the first question is that 12 correspondents chose genuine products over local shops, as shown in Table 4.6.

Number	Question	Answer		Total
		Genuine 1	Local Shop 2	
1	What's brand do you prefer?	12	0	12

Table 4.6 Answer to Question Number One

(source: Customer Sampling,2023)

The answer to the second question is 12 correspondent choose parts ready but more expensive, as shown in Table 4.7

Number	Question	Answer		Total
		Parts Ready but More Expensive 1	Parts Cheaper But Need Time for Delivery 2	
2	What is the important things for buying parts?	12	0	12

Table 4.7 Answer to Question Number Two

(source: Customer Sampling,2023)

The answer to the third question is that five correspondents chose delivery speed from PT XYZ as very slow, and seven correspondents chose delivery speed from PT XYZ as slow, as shown in Table 4.8

Number	Question	Answer				Total
		Very Slow 1	Slow 2	Fast 3	Super Fast 4	
3	How about delivery speed from PT XYZ?	5	7			12

Table 4.8 Answer to Question Number Three

(source: Customer Sampling,2023)

This research collects customer surveys by questionnaire. There are three questions for this questionnaire, as shown in Table 4.2. The questionnaire takes 12 samples of customers at the Martabe Site.

4.1.6 Business Process at PT XYZ

This research build a business process for parts transaction from customer to PT XYZ as shown in Figure 4.3.

1. Maintain Productivity Unit

Customer have main goals that is maintain high productivity unit through (1a) Operation and (1b) Maintenance.

2. Request Parts

Customer will request parts to PT XYZ for their maintenance unit.

3. Buy Parts From Others

If parts not ready at PT XYZ, customer will buy from others, thus PT XYZ got lost sales.

4. Purchase Order (PO)

If parts ready at PT XYZ, customer will buy and create purchase order (PO) to PT XYZ.

5. Billing to be Sales

PT XYZ billing Purchase Order (PO) from customer to be sales. Thus, availability parts became important factor for customer to create PO.

6. Delivery Parts to Customer

PT XYZ delivery parts to customer at Martabe Site.

7. Receive Parts

Customer doing good receive (GR) as evident already receive the parts.

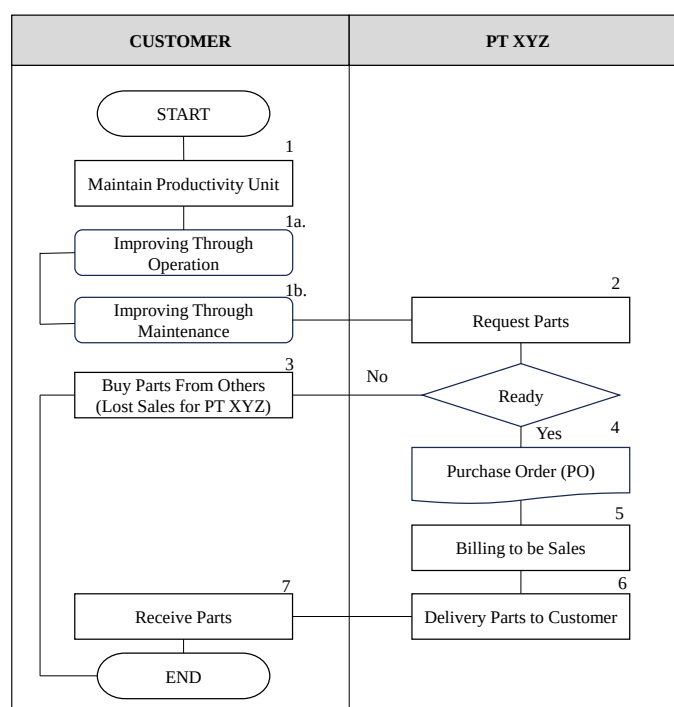


Figure 4.3 Business Process at PT XYZ

(source: Company Data,2023)

4.2 Data Analysis

4.2.1 Customer and Sector Selection Based on Pareto Analysis

Based on Pareto analysis, this research uses 80%-20% rules to choose customer and sector selection that will significantly boost sales at PT XYZ. The researcher analyze the data in Table 4.2 using Pareto analysis and got the result that ten big customers (5%) created 63% sales contribution at PT XYZ, as shown in Figure 4.4

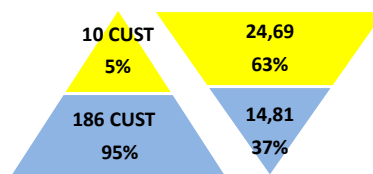


Figure 4.4 Pareto Analysis of Customer and Sector to Sales Contribution

(source: Internal Company, 2023)

The top two sales contributions are customers in gold mining, as shown in Table 4.2. PT XYZ has three customers in the gold mining sector and makes a 44% sales contribution, as shown in Table 4.1. Thus, this research will examine the mining sector located in the Martabe Site to boost sales at PT XYZ.

4.2.2 Root Cause Analysis Uses Five Whys Analysis and Solution of Improvement Determination

Based on data collection, this research uses five whys analysis to identify the root causes of the problem of sales not being achieved at PT XYZ. The researcher analyze data from the answer to the questionnaire. The questionnaire answer identifies the buying factor preferences of customers at the Martabe site. The results are that customers at the Martabe site will prioritize the genuine product if the parts are ready, and price is the second priority. This result identifies that the key buying factor from customers at the Martabe site is the availability of parts and fast lead time delivery, which can help customers reduce breakdown time and have good unit productivity.

At the same time, this questionnaire identifies customer voices for problems at PT XYZ. The problem is that the speed of parts supply from PT XYZ is still slow. The complaint is enhanced by low achievement customer service level measured by OTIF, as shown in Table 4.3. The problem OTIF did not achieve is that 15% of the parts were not on time. The problem with parts not being on time is two factors: (1) 11 % because parts are unavailable; (2) 4% parts are available, but delivery is delayed from Medan to Martabe Site. This problem analyzes by five whys analysis, as shown in Figure 4.5.

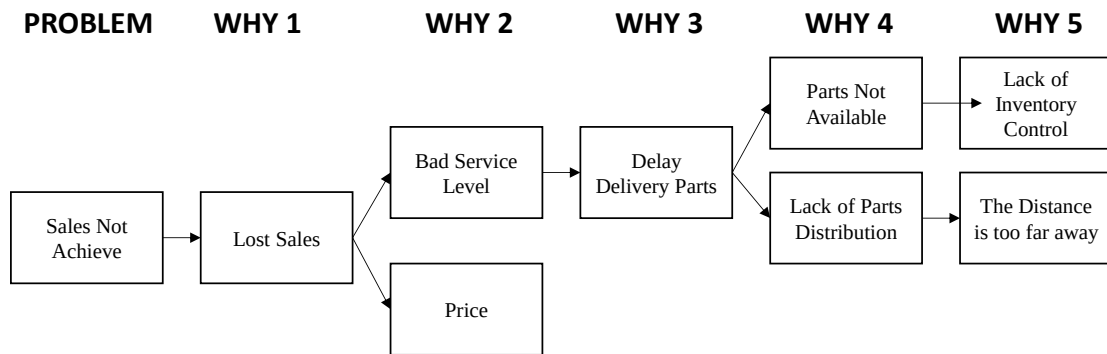


Figure 4.5 Five Whys Analysis

(source: Author, 2023)

Finally, based on the analysis, the study found strong relationship between sales and OTIF. This study also able to identify several potential improvement or actions to boosting sales through increase OTIF rates. Thus, this information could address the research question (RQ) 1 for this study.

Furthermore, based on five whys analysis, this study identified the root cause of low rates of OTIF : (1) Lack of inventory control and (2) The distance is too far away. Thus, this information could address the research question (RQ) 2 for this study. Based on this root cause, this study generates the solution to build a new support point to increase customer service level measured by OTIF rates through improving the parts supply chain and inventory control and boosting sales.

4.2.3 Design Parts Supply Chain Distribution to Determine Stock Level (SL) Based on Demand Forecasting Approach by Moving Average Model

Based on historical demand in Table 4.4, this research calculates forecast demand using equation 2.1 to improve the availability of parts—the forecast demand for washers is as follows:

$$F_d = \frac{(D_1 + D_2 + \dots + D_{12})}{12}$$

$$F_d = \frac{(112 + 175 + 196 + 217 + 175 + 147 + 385 + 199 + 140 + 179 + 350 + 193)}{12}$$

$$F_d = 206 \text{ pcs}$$

From this calculation, the forecast demand for the washer is 206 pcs. After getting forecast demand, this study calculates stock level min using equation 2.2 and stock level max using equation 2.3. The calculation of stock level min and max for washer:

$$SL_{min} = FD(SS + LT) = 205(0,5 + 0,5) = 206$$

$$SL_{max} = FD(SS + LT + CO) = 205(0,5 + 0,5 + 0,4) = 288$$

From this calculation, the stock level minimum to stock for the washer is 206 pcs, and the maximum stock at the warehouse is 288 pcs.

After getting stock level, this study formulated list item backup (LIB) based on Rank Month Movement (RMM). Rank Month Movement (RMM) is a movement of demand parts for each month based on 12-month historical demand. This study is classified into three categories : (1) Fast-moving is rank A-D, (2) Slow-moving is rank E-H, (3) non-moving is rank I. Rank A is 10-12 Month Movement (MM), rank B is 8-9 Month Movement (MM), rank C is 6-7 Month Movement (MM), rank D is 5 Month Movement (MM), rank E is 4 Month Movement (MM), rank F is 3 Month Movement (MM), rank G is 2 Month Movement (MM), rank H is 1 Month Movement (MM), rank I is 0 Month Movement (MM) as shown in Table 4.9.

MM	RMM	Remark
12	A	Fast Moving
11	A	Fast Moving
10	A	Fast Moving
9	B	Fast Moving
8	B	Fast Moving
7	C	Fast Moving
6	C	Fast Moving
5	D	Fast Moving
4	E	Slow Moving
3	F	Slow Moving
2	G	Slow Moving
1	H	Slow Moving
0	I	Non Moving

Table 4.9 Rank Month Movement (RMM)

(source: Author, 2023)

This study also considered Rank Month Movement Indonesian Wild (RMM IW). RMM IW is the rank month movement for all branches at PT XYZ. The calculation of RMM for Washer can be seen in Table 4.10.

NPN	DESC	11.2022	12.2022	01.2023	02.2023	03.2023	04.2023	05.2023	06.2023	07.2023	08.2023	09.2023	10.2023	MM	RMM	RMM IW
01643-22245	WASHER	112	175	196	217	175	147	385	199	140	179	350	193	12	A	A

Table 4.10. Rank Month Movement (RMM) of Washer

(source: Author, 2023)

This study formulate LIB based on RMM. We input all fast-moving (RMM and RMM IW = A-D) to LIB, and for slow-moving (RMM = E-H), we just input for fast-moving RMM IW (RMM IW = A-D) and did not input non-moving item to LIB. LIB is 593 items that consist of 129 items fast-moving, as shown in Table 4.11 and 464 items slow-moving, as shown in Table 4.12.

RMM	RMM IW	Total
A	A	29
	B	2
A Total		31
B	A	26
	B	3
	C	1
B Total		30
C	A	30
	B	3
	C	6
	D	2
C Total		41
D	A	18
	C	3
	D	4
	E	2
D Total		27
Total Fast Moving		129

Table 4.11. Total LIB Fast Moving

(source: Author, 2023)

The classification of LIB Fast moving are:

1. RMM "A" is 31 items, which is RMM IW "A" is 29 items, and RMM IW "B" is two items;
2. RMM "B" is 30 items, which is RMM IW "A" is 26 items, RMM IW "B" is three items, RMM IW "C" is one item;

3. RMM "C" is 41 items which RMM IW "A" is 30 items, RMM IW "B" is three items; RMM IW "C" is six items, RMM IW "D" is two items;
4. RMM "D" is 27 items, which RMM IW "A" is 18 items, RMM IW "C" is three items, RMM IW "D" is four items, RMM IW "E" is two items;

RMM	RMM IW	Total
E	A	25
E Total		25
F	A	51
	B	2
	C	1
	D	1
F Total		55
G	A	123
	B	11
	C	13
	D	1
G Total		148
H	A	197
	B	23
	C	12
	D	4
H Total		236
Total Slow Moving		464

Table 4.12. Total LIB Slow-Moving

(source: Author, 2023)

The classification of LIB Slow Moving are:

1. RMM "E" is 25 items, RMM IW "A" is 25 items;
2. RMM "F" is 55 items, RMM IW "A" is 51 items; RMM IW "B" is two items; RMM IW "C" is 1 item, RMM IW "D" is 1 item;
3. RMM "G" is 148 items, which RMM IW "A" is 123 items, RMM IW "B" is 11 items, RMM IW "C" is 13 items, RMM IW "D" is 1 item;
4. RMM "H" is 236 items, which RMM IW "A" is 202 items, RMM IW "B" is 23 items, RMM IW "C" is 12 items, RMM IW "D" is four items;

4.2.4 Design New Support Point Based on Stock Level (SL) Using Warehouse Space Estimator Tool

Based On LIB stock to stock at the new warehouse, this study calculates space for the warehouse. This study converts LIB to parts location. The calculation space warehouse is shown in Table 4.13.

1. Small Parts Location

- B1 = Doos 11 (1 row small rack is 11 boxes) = 0 bin
- B2 = Doos 6 (1-row small rack is six boxes) = 226 bins
- B3 = Doos 4 (1-row small rack is four boxes) = 116 bins
- B4 = Doos 3 (1-row small rack is three boxes) = 45 bins
- B5 = Doos 2 (1-row small rack is two boxes) = 22 bins

2. Other Parts Location

- Quantity of filters = 1319 pcs
- Quantity of heavy-duty items = 389 pcs
- Quantity of undercarriage items = 194 pcs

3. Warehouse Office

This calculation is based on the total workforce of the warehouse crew. For this study, the workforce will stay in a warehouse. 3.

4. Tools & Fire Extinguisher

This calculation is based on forklift 1 unit, hand pallet 1 unit, trolley 1 unit. There are 10 pcs fire extinguishers.

5. Projected Growth

This calculation already covers revenue growth during five years, which is 15%.

6. Key Assumptions

This calculation already covers the safety factor of 15%, and the min-max deviation is 10%

Warehouse Area Estimator

Legend User input = Output = 			
INPUT			
SMALL PARTS			
Quantity of bins (number of bins)			
Quantity of Bin B1 =	0		
Quantity of Bin B2 =	226		
Quantity of Bin B3 =	116		
Quantity of Bin B4 =	45		
Quantity of Bin B5 =	22		
Total bins =	409		
OTHER PARTS (number of parts)			
Quantity of filters =	1319		
Quantity of heavy duty items =	389		
Quantity of under carriage items =	194		
WAREHOUSE OFFICE (office for warehouse crew only)			
Number of on-duty warehouse crew =	3		
TOOLS & FIRE EXTINGUISHER			
Forklift quantity =	1		
Hand pallet quantity =	1		
Trolley quantity =	2		
Fire extinguisher quantity =	10		
PROJECTED GROWTH			
Projected percentage of revenue growth over 5 years =	15%		
KEY ASSUMPTIONS			
Safety factor / buffer for estimated storage area =	10%		
Min and max deviation from averaged ratio =	10%		
RECOMMENDED WAREHOUSE AREA (sq m)			
1. STORAGE AREA	Min	Max	Can be stored at mezzanine level?
1.1. Area for small parts =	15	18	Yes
1.2. Area for filters =	46	56	Yes
1.3. Area for heavy duty items =	22	27	No
1.4. Area for under carriage =	45	55	No
Total storage area =	128	156	
2. WORK AREA			
2.1. Area for receiving =	2	3	
2.2. Area for QI =	2	2	
2.3. Area for ready to bin =	2	2	
2.4. Area for QC =	1	2	
2.5. Area for shipping / packing =	1	2	
2.6. Area for ready to ship =	3	4	
Total work area =	12	14	
3. AISLES, WALKWAYS AND WAREHOUSE OFFICE			
3.1. Main aisles, walkways	21	26	
3.2. Warehouse office area	8	8	
4. TOOLS & FIRE EXTINGUISHER			
4.1. Area for forklift	10	10	No
4.2. Area for hand pallet	1	1	No
4.3. Area for trolley	2	2	No
4.4. Area for fire extinguisher	1	1	Yes
Total tools & fire extinguisher area =	14	14	
TOTAL ESTIMATED AREA	183	218	

Table 4.13 Calculation of Warehouse Area

(source: Internal Company, 2023)

From this calculation, the minimal space is 183 m² and the maximal space is 218 m². The yard for the warehouse is just ready in 8 m x 18 m = 144 m². This yard is not enough, so we added ducting racking for the second floor in 8 m x 7 m = 56 m². Thus, the total area is 200 m² as shown in Figure 4.6.

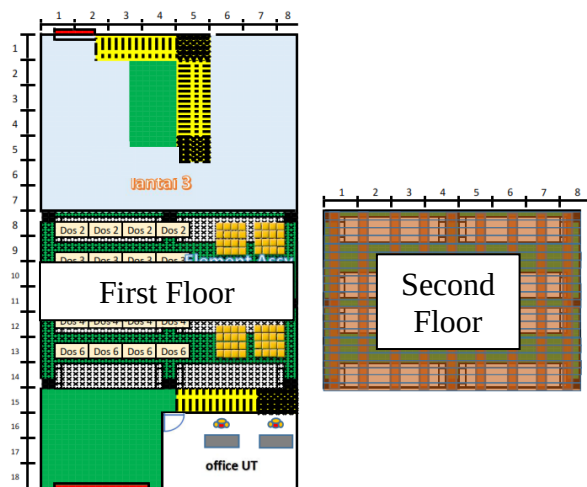


Figure 4.6 Layout Warehouse

(source: Author, 2023)

Finally, based on the analysis, the study found several potential improvement or actions to increase availability parts through developing new support point based on effective parts supply chain, such as inventory control and demand forecasting. Thus, this information could address the research question (RQ) 3 for this study.

4.2.5 Design Feasibility Study Using Internal Rate of Return (IRR) Analysis

This study assesses the feasibility of this investment using IRR analysis through a cash flow report, as shown in Table 4.14. The result of this assessment is that the project is feasible to build. So, PT XYZ decided to build a new support point.

CASH FLOW REPORT

In Million IDR, Year Ended 31 December

	2023	2024	2025	2026	2027	2028
Operating Profit (Income)	-81	3.149	3.877	3.860	3.345	1.485
Add back : Depreciation	362	362	362	362	362	0
EBITDA	281	3.511	4.238	4.222	3.707	1.485
Income Tax	0	-693	-853	-849	-736	-327
Working Capital	-774	-3.610	-663	-485	-631	230
Capex	-1.809					
Free Cash Flow	-1.809	-493	-792	2.723	2.888	2.341
Adjusted free cash flow	-1.809	-493	-792	2.723	2.888	2.341

WACC	18,0%						
Period	0	1	2	3	4	5	6
Factor	100%	85%	0,72	0,61	0,52	0,44	0,37
PV	(1.809)	-418	-568	1.657	1.490	1.023	514

NPV: Rp

1.888,56

IRR:

37%

THIS PROJECT IS FEASIBLE

Telecommunication	CITRIX
Sales Unit	
CP Unit (in days)	

Table 4.14 Cash Flow Report

(source: Author, 2023)

4.3 Improvement Implementation & Verification Result

The improvement implementation is to build a new support point, as shown in Figure 4.7.



Figure 4.7 New Warehouse at Martabe Site
(source: Author, 2023)

After this implementation, this study shows improvement in the availability of parts, OTIF and sales achievement. This improvement increases the availability of parts by 19%, from 77 to 91, as shown in Table 4.15. Availability of parts is increased because the parts are ready at the Martabe Site.

BEFORE													
Bulan	1	2	3	4	5	6	7	8	9	10	11	12	Average
Plan Availability	90	90	90	90	90	90	90	90	90	90	90	90	90
Aktual Availability	80	76	75	70	72	79	75	78	75	74	85	83	77
Achievement	89%	84%	83%	78%	80%	88%	83%	87%	83%	82%	94%	92%	85%

AFTER													
Bulan	1	2	3	4	5	6	7	8	9	10	11	12	Average
Plan Availability	90	90	90	90	90	90	90	90	90	90	90	90	90
Aktual Availability	92	90	90	90	91	92	90	90	91	92	92	93	91
Achievement	102%	100%	100%	100%	101%	102%	100%	100%	101%	102%	102%	103%	101%

GROWTH													
Bulan	1	2	3	4	5	6	7	8	9	10	11	12	Total
Growth	15%	18%	20%	29%	26%	16%	20%	15%	21%	24%	8%	12%	19%

Table 4.15 Growth Availability Before and After Building New Warehouse
(source: Author, 2023)

Availability improvement increases customer service level, and OTIF rates measure that. OTIF rates increase 8% from 85 to 92, as shown in Table 4.16

BEFORE													
Bulan	1	2	3	4	5	6	7	8	9	10	11	12	Average
Plan OTIF Rates	90	90	90	90	90	90	90	90	90	90	90	90	90
Aktual OTIF Rates	86	85	84	82	83	86	85	86	85	84	89	86	85
Achievement	96%	94%	93%	91%	92%	96%	94%	96%	94%	93%	99%	96%	95%

AFTER													
Bulan	1	2	3	4	5	6	7	8	9	10	11	12	Average
Plan OTIF Rates	90	90	90	90	90	90	90	90	90	90	90	90	90
Aktual OTIF Rates	91	91	93	90	90	92	91	91	92	91	92	95	92
Achievement	101%	101%	103%	100%	100%	102%	101%	101%	102%	101%	102%	106%	102%

GROWTH													
Bulan	1	2	3	4	5	6	7	8	9	10	11	12	Total
Growth	6%	7%	11%	10%	8%	7%	7%	6%	8%	8%	3%	10%	8%

Table 4.16 Growth OTIF Before and After Building New Warehouse
(source: Author, 2023)

OTIF's improvement increased sales at PT XYZ by 44%, from 39,5 to 57,0, as shown in Table 4.17

BEFORE													
Bulan	1	2	3	4	5	6	7	8	9	10	11	12	Total
Plan Sales	4,0	4,0	3,7	4,0	3,8	4,0	4,1	3,8	3,9	3,7	4,0	3,9	46,9
Aktual Sales	3,5	3,3	3,1	2,5	2,7	3,6	3,3	3,5	3,7	3,3	3,9	3,1	39,5
Achievement	88%	83%	84%	63%	71%	90%	80%	92%	95%	89%	98%	79%	84%

AFTER													
Bulan	1	2	3	4	5	6	7	8	9	10	11	12	Total
Plan Sales	3,6	3,6	3,6	3,8	4,0	4,2	4,2	4,6	4,6	4,5	4,5	4,3	49,5
Aktual Sales	3,2	3,5	3,6	3,3	4,9	4,6	5,0	5,2	5,1	6,4	5,6	6,6	57,0
Achievement	90%	97%	100%	87%	123%	110%	119%	112%	110%	141%	125%	152%	115%

GROWTH													
Bulan	1	2	3	4	5	6	7	8	9	10	11	12	Total
Growth	-8%	5%	15%	31%	82%	29%	52%	49%	38%	93%	44%	112%	44%

Table 4.17 Growth Sales at Medan Before and After Building New Warehouse
(source: Author, 2023)

Sales at the Martabe site increased 74% from 17,3 to 30,04, as shown in Table 4.18.

No	Customer	Sales Before	Sales After	Growth
1	PT HIJ	10,79	17,66	64%
2	PT EFG	6,50	11,18	72%
3	PT KLM	0,01	1,20	10071%
Total		17,30	30,04	74%

Table 4.18 Growth Sales at Martabe Before and After Building New Warehouse
(source: Author, 2023)

At the same time, the productivity unit from customers has exemplary achievements after this improvement, as shown in Table 4.19.

Fleet	Physical Availability Unit
3x Excavator -120T	95%
1x Excavator - 30T HB365	99%
3x Grader	94%
4x Truck Dump HM400	97%
All Equipments	96%

Table 4.19 Productivity Unit's Customer
(source: Customer Data, 2023)

4.4 Evaluation & Standardization

PT XYZ formulated periodic report, including availability and OTIF performance, and submitted them monthly to customers at the Martabe site and arrange monthly meeting to review this report.