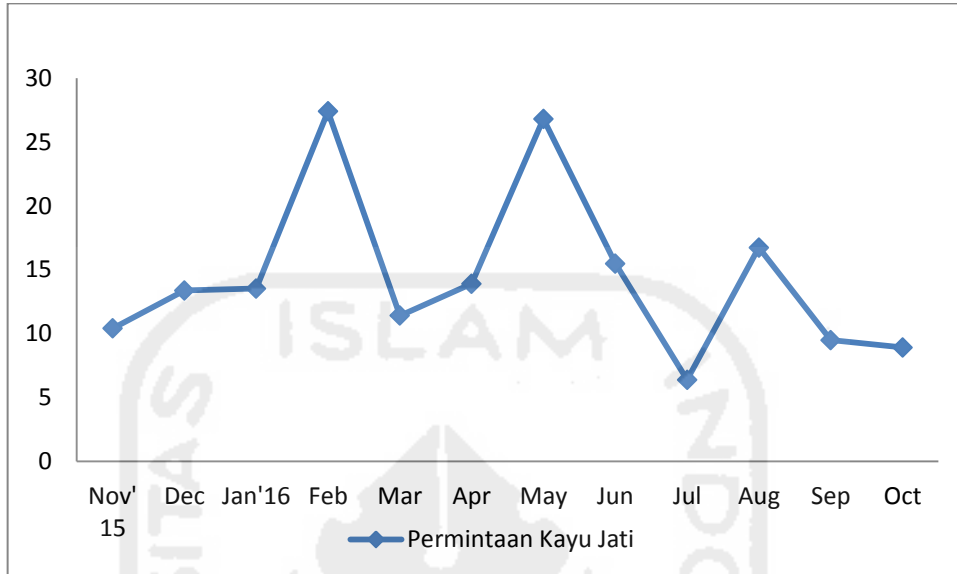


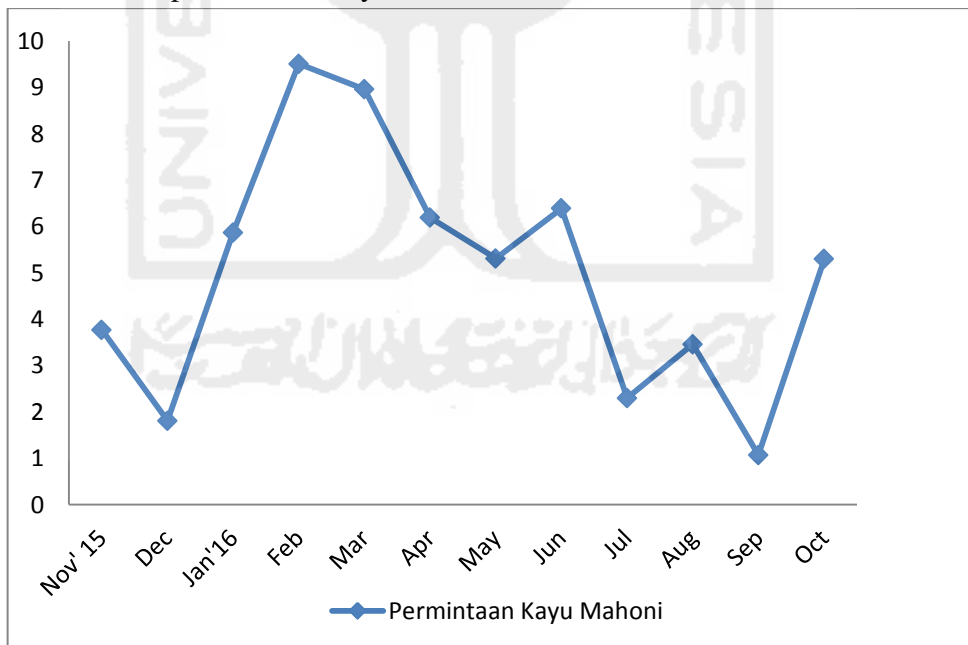
LAMPIRAN

A. Grafik Permintaan

- Grafik Permintaan Kayu Jati



- Grafik permintaan Kayu Mahoni



B. Permintaan Bahan Baku

Tabel B-1 Permintaan Bulan November 2015

TANGGAL	JATI		MAHONI	
	VOL (M3)	NILAI	VOL (M3)	NILAI
02 Nop 2015	2,3200	4.895.000		
04 Nop 2015	0,8900	1.600.000		
05 Nop 2015				
07 Nop 2015				
09 Nop 2015	0,2000	438.000	0,2100	1.050.000
	0,1800	333.000		
10 Nop 2015			0,4770	1.717.000
13 Nop 2015	0,1600	360.000		
16 Nop 2015			0,4700	2.000.000
			0,3860	1.347.000
17 Nop 2015	0,3300	445.000		
	1,0500	2.328.000		
18 Nop 2015	1,2700	4.489.000		
	0,3700	800.000		
20 Nop 2015	0,9100	5.123.000		
	0,3800	760.000		
21 Nop 2015	0,2200	440.000		
	1,2200	2.485.500	0,2000	1.040.000
23 Nop 2015	0,1400	260.000	0,3220	1.223.600
			0,2400	782.000
24 Nop 2015	0,0900	230.000		
25 Nop 2015			0,2200	150.000
27 Nop 2015	0,3900	720.000		
30 Nop 2015	0,1600	295.000	0,4600	2.090.400
			0,7800	3.655.000
	10,4000	26.248.500	3,7650	15.055.000

Tabel B-2 Permintaan Bulan Desember 2015

TANGGAL	JATI		MAHONI	
	VOL (M3)	NILAI	VOL (M3)	NILAI
01 Des 2015	0,4500	900.000		
02 Des 2015	0,3600	809.500		
03 Des 2015	0,1100	230.000		
	0,1100	150.000		
04 Des 2015	0,2600	572.000		
	0,2300	400.000		
	0,5300	950.000		
	0,0700	129.000		
05 Des 2015	0,1800	330.000		
08 Des 2015	1,8600	3.780.000		
10 Des 2015	0,1000	170.000		
	0,2500	460.000		
12 Des 2015	0,5600	830.000		
	0,0300	40.000		
14 Des 2015	0,3800	703.500		
	0,2200	530.000		
15 Des 2015	0,3500	630.000		
	0,1100	200.000		
16 Des 2016	1,5500	2.946.000		
			0,2600	936.000
17 Des 2015	0,0600	81.000		
	2,1100	4.043.000	0,0700	238.000
	0,0500	92.000		
18 Des 2015	0,2200	556.000		
	0,2000	460.000		
21 Des 2015	0,3200	502.000		
	0,0800	184.000	0,0950	200.000
22 Des 2015	0,1700	314.500	0,5910	1.925.100
	0,1000	185.000	0,3360	968.350
23 Des 2015	1,1400	1.946.000	0,1530	452.000
	0,3400	630.000		
28 Des 2015	0,1000	135.000		
29 Des 2015	0,1300	240.000		
	0,2500	575.000	0,2640	976.000
			0,0450	105.000
31 Des 2015	0,3900	858.000		
	13,3700	25.561.500	1,8140	5.800.450

Tabel B-3 Permintaan Bulan Januari 2016

TANGGAL	JATI		MAHONI	
	VOL (M3)	NILAI	VOL (M3)	NILAI
02-Jan-16	0,1600	393.000		
	1,7500	3.257.500		
	3,1300	6.356.500	0,1900	943.000
04-Jan-16	0,3600	880.000		
08-Jan-16	0,5000	1.200.000		
12-Jan-16				
	0,1800	365.000		
13-Jan-16	0,4100	810.500		
14-Jan-16	0,2800	552.000	0,7470	2.168.400
15-Jan-16			0,1110	399.000
16-Jan-16	0,7000	1.776.500	0,1810	651.600
	0,3900	1.072.500	1,1400	3.367.000
	0,7700	1.771.000	0,2700	1.020.000
			0,3200	1.152.000
18-Jan-16			0,2010	600.000
21-Jan-16	0,4200	777.000		
22-Jan-16	0,6000	900.000	1,6840	5.088.000
25-Jan-16				
			0,0780	93.600
26-Jan-16	0,2900	535.000		
	0,0500	67.500		
	0,2000	490.000		
	0,2300	575.000		
	0,1400	325.000		
	0,3400	935.000		
27-Jan-16	2,3400	3.524.000		
28-Jan-16	0,2000	510.000		
29-Jan-16			0,7960	2.708.000
30-Jan-16	0,0800	150.000	0,1500	825.000
	13,5200	27.223.000	5,8680	19.015.600

Tabel B-4 Permintaan Bulan Februari 2016

TANGGAL	JATI		MAHONI	
	VOL (M3)	NILAI	VOL (M3)	NILAI
01-Feb-16			1,0350	1.774.600
			0,3300	1.716.000
02-Feb-16				
03-Feb-16	0,5600	1.530.000	0,2080	780.000
05-Feb-16	2,4000	4.651.500	0,2220	850.000
10-Feb-16	0,1000	185.000	0,1220	439.200
11-Feb-16	0,1300	270.000		
15-Feb-16	0,1000	185.000	0,0600	250.000
	9,1200	12.985.000	0,6300	2.278.800
16-Feb-16	1,3800	2.553.000		
18-Feb-16	0,0900	196.500		
19-Feb-16	0,0600	80.000	0,2700	1.088.000
			1,0570	3.801.450
			0,7300	2.800.000
20-Feb-16	1,2200	3.238.000	0,4600	2.462.000
	11,1300	16.021.500		
	0,2000	574.000		
	0,2000	460.000		
22-Feb-16			0,5290	1.904.400
23-Feb-16			2,6060	5.864.000
24-Feb-16	0,6000	1.214.000		
25-Feb-16			0,5960	1.400.600
26-Feb-16			0,3120	1.248.000
			0,2010	679.000
29-Feb-16	0,1100	150.000	0,1370	493.000
	27,4000	44.293.500	9,5050	29.829.050

Tabel B-5 Permintaan Bulan Maret 2016

TANGGAL	JATI		MAHONI	
	VOL (M3)	NILAI	VOL (M3)	NILAI
01 Mrt 2016				
02 Mrt 2016			0,2760	782.350
03 Mrt 2016	0,0800	184.000	0,2930	989.800
05 Mrt 2016	0,0500	68.000		
07 Mrt 2016	0,6300	1.732.500		
	0,3000	631.500	0,2100	1.092.000
08 Mrt 2016			0,0900	281.000
10 Mrt 2016	0,2500	600.000	0,4110	1.529.000
			1,5670	8.275.200
12 Mrt 2016	0,3800	653.000	0,5010	2.539.150
14 Mrt 2016			0,5450	1.934.250
			0,2200	1.044.000
16 Mrt 2016			1,1930	3.200.000
			0,7300	4.161.000
18 Mrt 2016	0,7500	1.362.000		
19 Mrt 2016	0,7400	1.700.000		
	1,6600	2.700.000		
21 Mrt 2016	0,8600	1.858.000		
22 Mrt 2016	0,1800	414.000	0,0700	360.000
23 Mrt 2016	1,0500	2.163.000	0,8490	2.260.000
24 Mrt 2016			0,3370	1.203.000
			0,1370	520.000
26 Mrt 2016	0,3600	1.240.000		
	0,2700	670.000		
28 Mrt 2016	0,9900	1.771.500	0,4500	2.390.000
	0,5400	1.485.000	0,5860	1.428.500
	0,3600	900.000		
29 Mrt 2016			0,4280	234.200
			0,0650	230.000
30 Mrt 2016	0,1000	185.000		
	0,3800	900.000		
31 Mrt 2016	0,5300	924.000		
	0,5900	1.091.500		
	0,1500	277.500		
	0,2000	500.000		
	11,4000	24.010.500	8,9580	34.453.450

Tabel B-6 Permintaan Bulan April 2016

TANGGAL	JATI		MAHONI	
	VOL (M3)	NILAI	VOL (M3)	NILAI
01-Apr-16				
			0,9240	3.326.400
04-Apr-16	0,2300	582.000	0,6330	2.918.000
	0,5300	1.250.000		
06-Apr-16	0,3700	758.500		
	0,0700	130.000		
	1,4900	3.309.000		
07-Apr-16	0,6300	1.449.000	0,3540	1.324.000
08-Apr-16			1,1880	4.479.500
09-Apr-16	0,3700	550.000		
	0,1600	264.000		
	0,1500	277.500		
11 Apr 2016	0,5300	920.000		
12-Apr-16	0,0900	200.000		
14-Apr-16	0,1000	230.000	0,3800	1.565.000
15-Apr-16	0,9330	3.380.000		
20-Apr-16			0,3010	1.083.600
21-Apr-16	0,6400	1.106.000		
22-Apr-16	0,7500	2.360.500		
25-Apr-16	0,1100	180.000	0,2730	980.000
	0,1400	259.000	0,7040	1.850.000
26-Apr-16			0,9680	2.274.800
			0,2900	1.500.000
28-Apr-16	3,9500	10.850.000		
	0,4200	773.500		
29-Apr-16	0,2800	700.000	0,1720	584.800
30-Apr-16	1,9600	5.003.000		
	13,9030	34.532.000	6,1870	21.886.100

Tabel B-7 Permintaan Bulan Mei 2016

TANGGAL	JATI		MAHONI	
	VOL (M3)	NILAI	VOL (M3)	NILAI
02 Mei 2016	1,8800	4.193.500		
03 Mei 2016	0,0090	167.000		
	0,1600	295.000		
05 Mei 2016	1,3000	2.990.000		
07 Mei 2016	1,0400	1.924.000	2,0850	4.899.750
09 Mei 2016	0,1000	185.000		
	6,5000	9.000.000		
	0,9800	2.156.000		
10 Mei 2016	0,3200	592.000		
11 Mei 2016	0,4900	1.347.500		
13 Mei 2016	0,1300	273.000	0,5270	1.238.450
14 Mei 2016	0,3100	738.000		
	1,0000	2.300.000		
16 Mei 2016	7,7000	11.165.000		
17 Mei 2016	0,1100	250.000		
19 Mei 2016			2,0170	4.476.950
			0,1900	988.000
20 Mei 2016	0,9900	2.277.000		
21 Mei 2016	0,4600	1.700.000	0,0440	158.000
23 Mei 2016	1,0000	2.300.000		
25 Mei 2016				
26 Mei 2016	0,5300	1.200.000		
28 Mei 2016	0,7500	2.578.000		
	0,7100	1.800.000		
31 Mei 2016	0,3400	812.000	0,3380	1.216.000
			0,1040	374.000
	26,8090	50.243.000	5,3050	13.351.150

Tabel B-8 Permintaan Bulan Juni 2016

TANGGAL	JATI		MAHONI	
	VOL (M3)	NILAI	VOL (M3)	NILAI
01-Jun-16			0,0074	260.000
02-Jun-16	0,5500	1.265.000	1,5030	5.410.800
03-Jun-16				
04-Jun-16	0,1400	259.000		
	0,2600	600.000		
07-Jun-16	0,7300	1.825.000		
	0,2900	441.500		
08-Jun-16	0,0400	50.000	2,5560	9.201.000
09-Jun-16			0,0990	350.000
10-Jun-16	0,5100	1.173.000		
14-Jun-16	0,7500	2.500.000		
	0,0900	166.500	0,1470	529.000
15-Jun-16	1,4800	2.663.000		
16-Jun-16	0,3600	630.000		
	0,1500	345.000		
17-Jun-16	5,3600	13.836.500		
	0,2700	390.000		
18-Jun-16	0,4700	920.000		
20-Jun-16			0,1220	439.200
			0,3820	1.615.200
			0,3220	1.615.200
21-Jun-16	0,4400	644.000	0,1980	465.300
22-Jun-16	0,1100	200.000		
23-Jun-16			0,0740	285.000
			0,7500	3.764.000
25-Jun-16	0,4900	1.150.000		
26-Jun-16				
27-Jun-16	0,3500	830.000	0,2300	696.000
28-Jun-16				
29-Jun-16	1,0400	3.076.000		
	0,7500	1.775.000		
	0,2500	550.000		
30-Jun-16	0,1100	225.000		
	0,4900	1.127.500		
	15,4800	36.642.000	6,3904	24.630.700

Tabel B-9 Permintaan Bulan Juli 2016

TANGGAL	JATI		MAHONI	
	VOL (M3)	NILAI	VOL (M3)	NILAI
01-Jul-16	0,1600	390.000		
14-Jul-16	1,0400	1.924.000	0,4390	1.982.400
			0,0570	200.000
15-Jul-16	0,3200	735.000		
	0,5300	1.066.000		
16-Jul-16	0,6500	1.545.000		
	0,3500	1.000.000		
18-Jul-16	0,1900	437.000		
19-Jul-16	0,8100	1.771.000		
20-Jul-16	0,3300	610.000		
21-Jul-16	0,4000	863.000		
27-Jul-16			0,7720	1.829.000
			0,3300	1.188.000
28-Jul-18	0,6200	1.429.000		
	0,5600	1.214.000		
29-Jul-16	0,4200	777.000	0,6980	2.832.000
	6,3800	13.761.000	2,2960	8.031.400

Tabel B-10 Permintaan Bulan Agustus 2016

TANGGAL	JATI		MAHONI	
	VOL (M3)	NILAI	VOL (M3)	NILAI
01 Agt 2016	2,2600	6.344.000	0,1200	624.000
			0,4710	1.332.000
			0,1700	662.000
03 Agt 2016	0,4800	646.400	0,4940	1.688.400
04 Agt 2016				
05 Agt 2016	0,35	805.000	0,1150	360.000
	1,4400	3.834.000		
06 gt 2016	0,6200	1.097.000	0,2300	495.000
	0,2000	270.000		
08 Agt 2016	0,5500	1.150.000		
	0,5100	1.225.000		
09 Agt 2016	0,5600	1.050.000		

10 Agt 2016	0,1800	450.000		
	0,0700	129.500		
12 Agt 2016	2,1400	4.009.000		
13 Agt 2016			0,2830	1.200.000
15 Agt 2016	0,2500	462.500		
16 Agt 2016	0,7200	1.421.000	0,1800	611.750
	0,0500	148.000		
	0,2800	378.000		
18 Agt 2016	0,0700	130.000		
19 Agt 2016	0,0800	200.000		
	0,6700	1.340.000		
20 Agt 2016	0,3900	897.000		
24 Agt 2016			0,1180	424.000
25 Agt 2016	0,0200	27.000		
26 Agt 2016	0,3500	987.000		
	0,2100	413.000		
27 Agt 2016	0,0900	207.000		
	0,8200	1.517.000		
29 Agt 2016	0,8400	1.554.000		
	1,4200	2.677.000		
30 Agt 2016	0,2400	502.500	1,2750	4.590.000
	0,1400	259.000		
31 Agt 2016	0,3670	1.312.000		
	0,3600	666.000		
	16,7270	36.107.900	3,4560	11.987.150

Tabel B-11 Permintaan Bulan September 2016

TANGGAL	JATI		MAHONI	
	VOL (M3)	NILAI	VOL (M3)	NILAI
01-Sep-16			0,0560	200.000
02-Sep-16	0,6600	1.279.500		
05-Sep-16				
	0,0800	198.000	0,2120	703.200
06-Sep-16			0,2980	1.072.000
08-Sep-16	0,4000	920.000	0,1600	586.800
	0,0500	90.000		
13-Sep-16	0,1400	259.000		
	0,2200	407.000		
14-Sep-16	1,2300	2.900.000		
15-Sep-16	2,1900	3.758.500		
16-Sep-16			0,0690	162.000
17-Sep-16	0,0900	165.000		
22-Sep-16	0,8200	1.950.000		
	0,6300	1.120.500	0,2040	927.400
23-Sep-16	0,3100	663.500		
26-Sep-16	0,8400	1.554.000		
27-Sep-16	0,4200	777.000		
28-Sep-16	0,2700	444.500		
29-Sep-16	0,3900	940.000	0,0700	238.000
	0,1300	299.000		
30-Sep-16	0,6100	1.250.000		
	9,4800	18.975.500	1,0690	3.889.400

Tabel B-12 Permintaan Bulan Oktober 2016

TANGGAL	JATI		MAHONI	
	VOL (M3)	NILAI	VOL (M3)	NILAI
04 Okt 2016	0,2700	621.000	0,0580	136.300
05 Okt 2016	2,2780	4.815.300		
06 Okt 2016	0,0800	148.000		
08 Okt 2016	0,2900	1.268.000		
	0,3300	930.000		
10 Okt 2016	0,28	574.000	0,5700	2.052.000
			0,2810	1.061.600
12 Okt 2016	0,2600	511.000	0,3740	607.900
14 Okt 2016	0,4000	740.000		
15 Okt 2016	0,3700	850.000	0,9310	3.911.600
	0,0900	121.500		
18 Okt 2016	0,6100	1.200.000	0,2660	821.000
	0,1120	2.725.500		
19 Okt 2016	0,3700	851.000		
	0,3200	736.000	0,0870	313.200
20 Okt 2016				
			0,5100	1.936.000
22 Okt 2016	0,2000	315.000	1,8700	14.650.000
24 Okt 2016	0,2300	425.000		
	0,5400	944.000	0,2300	828.000
	0,3600	724.000		
25 Okt 2016	0,2800	644.000	0,1210	400.000
26 Okt 2016	0,4800	842.000		
27 Okt 2016	0,1800	414.000		
	0,1200	222.000		
28 Okt 2016	0,2600	1.092.000		
	0,2000	400.000		
	8,9100	22.113.300	5,2980	26.717.600

C. Perhitungan Metode *Silver Meal*

- Perhitungan Metode *Silver Meal* bahan baku kayu Jati

Pemesanan 1 :

Biaya Pemesanan/pesan (A) = Rp. 1.215.000

Biaya Penyimpanan/m³ (h) = Rp 5.900

m = 1 biaya rata-rata per bulan :

$$= 1/1 (\text{Rp.1.215.000} + 0) = \text{Rp.1.215.000}$$

m = 2 biaya rata-rata per bulan :

$$= \frac{1}{2} (\text{Rp.1.215.000} + (\text{Rp.5.900} \times 13,37))$$

$$= \text{Rp. 646.941,5}$$

m = 3 biaya rata-rata per bulan :

$$= 1/3 (\text{Rp.1.215.000} + (\text{Rp.5.900} \times 13,37) + 2(\text{Rp.5.900} \times 13,52))$$

$$= \text{Rp. 484.473}$$

m = 4 biaya rata-rata per bulan :

$$= \frac{1}{2} (\text{Rp.1.215.000} + (\text{Rp.5.900} \times 13,37) + 2(\text{Rp.5.900} \times 13,52) + 3(\text{Rp.5.900} \times 27,4))$$

$$= \text{Rp. 484.599,75}$$

Karena $m = 4 > m = 3$, maka yang diambil adalah $m = 3$ dengan jumlah order 37,29 m³

Pemesanan 2 :

m = 1 biaya rata-rata per bulan :

$$= 1/1 (\text{Rp.1.215.000} + 0) = \text{Rp.1.215.000}$$

m = 2 biaya rata-rata per bulan :

$$= \frac{1}{2} (\text{Rp.1.215.000} + (\text{Rp.5.900} \times 11,4))$$

$$= \text{Rp. 641.130}$$

m = 3 biaya rata-rata per bulan :

$$= 1/3 (\text{Rp.1.215.000} + (\text{Rp.5.900} \times 11,4) + 2(\text{Rp.5.900} \times 13,9))$$

$$= \text{Rp. 482.093,33}$$

m = 4 biaya rata-rata per bulan :

$$= 1/4 (\text{Rp.1.215.000} + (\text{Rp.5.900} \times 11,4) + 2(\text{Rp.5.900} \times 13,9) + 3(\text{Rp.5.900} \times 26,81))$$

$$= \text{Rp. 480.204,25}$$

$$\begin{aligned}
 m = 5 \text{ biaya rata-rata per bulan :} \\
 &= 1/5 (\text{Rp.1.215.000} + (\text{Rp.5.900} \times 11,4) + 2(\text{Rp.5.900} \times 13,9) + \\
 &\quad 3(\text{Rp.5.900} \times 26,81) + 4(\text{Rp.5.900} \times 15,48)) \\
 &= \text{Rp. 457.229}
 \end{aligned}$$

$$\begin{aligned}
 m = 6 \text{ biaya rata-rata per bulan :} \\
 &= 1/6 (\text{Rp.1.215.000} + (\text{Rp.5.900} \times 11,4) + 2(\text{Rp.5.900} \times 13,9) + \\
 &\quad 3(\text{Rp.5.900} \times 26,81) + 4(\text{Rp.5.900} \times 15,48) + 5(\text{Rp.5.900} \times \\
 &\quad 6,38)) \\
 &= \text{Rp. 412.392,5}
 \end{aligned}$$

$$\begin{aligned}
 m = 7 \text{ biaya rata-rata per bulan :} \\
 &= 1/7 (\text{Rp.1.215.000} + (\text{Rp.5.900} \times 11,4) + 2(\text{Rp.5.900} \times 13,9) + \\
 &\quad 3(\text{Rp.5.900} \times 26,81) + 4(\text{Rp.5.900} \times 15,48) + 5(\text{Rp.5.900} \times \\
 &\quad 6,38) + 6(\text{Rp.5.900} \times 16,37)) \\
 &= \text{Rp. 438.085,3}
 \end{aligned}$$

Karena $m = 7 > m = 6$, maka yang diambil adalah $m = 6$, dengan jumlah order $101,37 \text{ m}^3$

Pemesanan 3 :

$$\begin{aligned}
 m = 1 \text{ biaya rata-rata per bulan :} \\
 &= 1/1 (\text{Rp.1.215.000} + 0) = \text{Rp.1.215.000}
 \end{aligned}$$

$$\begin{aligned}
 m = 2 \text{ biaya rata-rata per bulan :} \\
 &= 1/2 (\text{Rp.1.215.000} + (\text{Rp.5.900} \times 9,48)) \\
 &= \text{Rp. 635.466}
 \end{aligned}$$

$$\begin{aligned}
 m = 3 \text{ biaya rata-rata per bulan :} \\
 &= 1/3 (\text{Rp.1.215.000} + (\text{Rp.5.900} \times 9,48) + 2(\text{Rp. 5.900} \times 8,91)) \\
 &= \text{Rp. 441.167}
 \end{aligned}$$

Karena $m = 2 > m = 3$ maka yang diambil $m = 3$ dengan jumlah order $35,12 \text{ m}^3$

- Perhitungan Metode *Silver Meal* bahan baku kayu Mahoni

Pemesanan 1 :

$$\text{Biaya Pemesanan/pesan (A)} = \text{Rp. 1.215.000}$$

$$\text{Biaya Penyimpanan/m}^3 \text{ (h)} = \text{Rp 3.700}$$

$$\begin{aligned}
 m = 1 \text{ biaya rata-rata per bulan :} \\
 &= 1/1 (\text{Rp.1.215.000} + 0) = \text{Rp.1.215.000}
 \end{aligned}$$

$$\begin{aligned}
 m = 2 \text{ biaya rata-rata per bulan :} \\
 &= \frac{1}{2} (\text{Rp.1.215.000} + (\text{Rp.3.700} \times 1,81)) \\
 &= \text{Rp. 610.848,5} \\
 m = 3 \text{ biaya rata-rata per bulan :} \\
 &= \frac{1}{3} (\text{Rp.1.215.000} + (\text{Rp.3.700} \times 1,81) + 2 (\text{Rp.3.700} \times 5,87)) \\
 &= \text{Rp. 421.711,67} \\
 m = 4 \text{ biaya rata-rata per bulan :} \\
 &= \frac{1}{4} (\text{Rp.1.215.000} + (\text{Rp.3.700} \times 1,81) + 2 (\text{Rp.3.700} \times 5,87) + \\
 &\quad 3 (\text{Rp.3.700} \times 9,51)) \\
 &= \text{Rp. 342.674} \\
 m = 5 \text{ biaya rata-rata per bulan :} \\
 &= \frac{1}{5} (\text{Rp.1.215.000} + (\text{Rp.3.700} \times 1,81) + 2 (\text{Rp.3.700} \times 5,87) + \\
 &\quad 3 (\text{Rp.3.700} \times 9,51) + 4 (\text{Rp.3.700} \times 8,96)) \\
 &= \text{Rp. 300.660,8} \\
 m = 6 \text{ biaya rata-rata per bulan :} \\
 &= \frac{1}{6} (\text{Rp.1.215.000} + (\text{Rp.3.700} \times 1,81) + 2 (\text{Rp.3.700} \times 5,87) + \\
 &\quad 3 (\text{Rp.3.700} \times 9,51) + 4 (\text{Rp.3.700} \times 8,96) + 5 (\text{Rp.3.700} \times \\
 &\quad 6,19)) \\
 &= \text{Rp. 269.636,5} \\
 m = 7 \text{ biaya rata-rata per bulan :} \\
 &= \frac{1}{7} (\text{Rp.1.215.000} + (\text{Rp.3.700} \times 1,81) + 2 (\text{Rp.3.700} \times 5,87) + \\
 &\quad 3 (\text{Rp.3.700} \times 9,51) + 4 (\text{Rp.3.700} \times 8,96) + 5 (\text{Rp.3.700} \times \\
 &\quad 6,19) + 6 (\text{Rp.3.700} \times 5,31)) \\
 &= \text{Rp. 247.957,29} \\
 m = 8 \text{ biaya rata-rata per bulan :} \\
 &= \frac{1}{8} (\text{Rp.1.215.000} + (\text{Rp.3.700} \times 1,81) + 2 (\text{Rp.3.700} \times 5,87) + \\
 &\quad 3 (\text{Rp.3.700} \times 9,51) + 4 (\text{Rp.3.700} \times 8,96) + 5 (\text{Rp.3.700} \times \\
 &\quad 6,19) + 6 (\text{Rp.3.700} \times 5,31) + 7 (\text{Rp.3.700} \times 6,39)) \\
 &= \text{Rp. 237.650,25} \\
 m = 9 \text{ biaya rata-rata per bulan :} \\
 &= \frac{1}{9} (\text{Rp.1.215.000} + (\text{Rp.3.700} \times 1,81) + 2 (\text{Rp.3.700} \times 5,87) + \\
 &\quad 3 (\text{Rp.3.700} \times 9,51) + 4 (\text{Rp.3.700} \times 8,96) + 5 (\text{Rp.3.700} \times
 \end{aligned}$$

$$6,19) + 6 (\text{Rp}.3.700 \times 5,31) + 7 (\text{Rp}.3.700 \times 6,39) + 8 (\text{Rp}.3.700 \times 2,3)) \\ = \text{Rp}. 218.809,11$$

m =10 biaya rata-rata per bulan :

$$= 1/10 (\text{Rp}.1.215.000 + ((\text{Rp}.3.700 \times 1,81) + 2 (\text{Rp}.3.700 \times 5,87) \\ + 3 (\text{Rp}.3.700 \times 9,51) + 4 (\text{Rp}.3.700 \times 8,96) + 5 (\text{Rp}.3.700 \times \\ 6,19) + 6 (\text{Rp}.3.700 \times 5,31) + 7 (\text{Rp}.3.700 \times 6,39) + 8 \\ (\text{Rp}.3.700 \times 2,3) + 9 (\text{Rp}.3.700 \times 3,46)) \\ = \text{Rp}. 208.450$$

m =11 biaya rata-rata per bulan :

$$= 1/11 (\text{Rp}.1.215.000 + (\text{Rp}.3.700 \times 1,81) + 2 (\text{Rp}.3.700 \times 5,87) \\ + 3 (\text{Rp}.3.700 \times 9,51) + 4 (\text{Rp}.3.700 \times 8,96) + 5 (\text{Rp}.3.700 \times \\ 6,19) + 6 (\text{Rp}.3.700 \times 5,31) + 7 (\text{Rp}.3.700 \times 6,39) + 8 \\ (\text{Rp}.3.700 \times 2,3) + 9 (\text{Rp}.3.700 \times 3,46) + 10 (\text{Rp}. 3.700 \times \\ 1,07)) \\ = \text{Rp}. 193.099,09$$

m =12 biaya rata-rata per bulan :

$$= 1/12 (\text{Rp}.1.215.000 + (\text{Rp}.3.700 \times 1,81) + 2 (\text{Rp}.3.700 \times 5,87) \\ + 3 (\text{Rp}.3.700 \times 9,51) + 4 (\text{Rp}.3.700 \times 8,96) + 5 (\text{Rp}.3.700 \times \\ 6,19) + 6 (\text{Rp}.3.700 \times 5,31) + 7 (\text{Rp}.3.700 \times 6,39) + 8 \\ (\text{Rp}.3.700 \times 2,3) + 9 (\text{Rp}.3.700 \times 3,46) + 10 (\text{Rp}. 3.700 \times 1,07) \\ + 11 (\text{Rp}.3.700 \times 5,3)) \\ = \text{Rp}. 194.983,33$$

Karena $m = 12 > m = 11$, maka yang diambil adalah $m = 11$ dengan jumlah order $54,64 \text{ m}^3$

Pemesanan 2 :

m = 1 biaya rata-rata per bulan :

$$= 1/1 (\text{Rp}.1.215.000 + 0) = \text{Rp}.1.215.000$$

Pemesanan ke-2 sebanyak $5,3 \text{ m}^3$

D. Perhitungan Metode *Least Unit Cost* (LUC)

- Perhitungan Metode *Least Unit Cost* kayu Jati

Biaya Pemesanan/pesan (A) = Rp. 1.215.000

Biaya Penyimpanan/ m^3 (h) = Rp 5.900

Pemesanan 1 :

m = 1 biaya per unit :

$$= \text{Rp.}1.215.000 / 10,4 \text{ m}^3 = \text{Rp.} 116.826$$

m =2 biaya per unit :

$$= (\text{Rp.}1.215.000 + (\text{Rp.}5.900 \times 13,4)) / 23,8 \text{ m}^3$$

$$= \text{Rp.} 54.364,8$$

m = 3 biaya per unit :

$$= \text{Rp.}1.215.000 + ((\text{Rp.}5.900 \times 13,4) + 2 \times (\text{Rp.}5.900 \times 13,5))) / 37,29 \text{ m}^3$$

$$= \text{Rp.}38.976,1$$

m = 4 biaya per unit :

$$= \text{Rp.}1.215.000 + ((\text{Rp.}5.900 \times 13,4) + 2 \times (\text{Rp.}5.900 \times 13,5) + 3 \times (\text{Rp.}5.900 \times 27,4))) / 64,69 \text{ m}^3$$

$$= \text{Rp.}29.964,4$$

m = 5 biaya per unit :

$$= \text{Rp.}1.215.000 + ((\text{Rp.}5.900 \times 13,4) + 2 \times (\text{Rp.}5.900 \times 13,5) + 3 \times (\text{Rp.}5.900 \times 27,4) + 4 \times (\text{Rp.}5.900 \times 11,4))) / 76,09 \text{ m}^3$$

$$= \text{Rp.}29.010,9$$

m = 6 biaya per unit :

$$= \text{Rp.}1.215.000 + ((\text{Rp.}5.900 \times 13,4) + 2 \times (\text{Rp.}5.900 \times 13,5) + 3 \times (\text{Rp.}5.900 \times 27,4) + 4 \times (\text{Rp.}5.900 \times 11,4) + 5 \times (\text{Rp.}5.900 \times 13,9))) / 89,99 \text{ m}^3$$

$$= \text{Rp.}29.086,4$$

Karena $m = 6 > m = 5$ maka yang diambil adalah $m = 5$, dengan jumlah order $76,09 \text{ m}^3$

Pemesanan 2 :

m = 1 biaya per unit :

$$= \text{Rp.}1.215.000 / 13,9 \text{ m}^3 = \text{Rp.} 87.410,1$$

m = 2 biaya per unit :

$$= (\text{Rp.}1.215.000 + (\text{Rp.}5.900 \times 26,8)) / 40,71 \text{ m}^3$$

$$= \text{Rp.} 33,370,8$$

m = 3 biaya per unit :

$$= \text{Rp.}1.215.000 + ((\text{Rp.}5.900 \times 26,8) + 2 \times (\text{Rp.}5.900 \times 15,5)) /$$

$$56,19 \text{ m}^3$$

$$= \text{Rp.}27.689$$

m = 4 biaya per unit :

$$= \text{Rp.}1.215.000 + ((\text{Rp.}5.900 \times 26,8) + 2 \times (\text{Rp.}5.900 \times 15,5) + 3$$

$$\times (\text{Rp.}5.900 \times 6,38))) / 62,57 \text{ m}^3$$

$$= \text{Rp.}26.670,4$$

m = 5 biaya per unit :

$$= \text{Rp.}1.215.000 + ((\text{Rp.}5.900 \times 26,8) + 2 \times (\text{Rp.}5.900 \times 15,5) + 3$$

$$\times (\text{Rp.}5.900 \times 6,38) + 4 \times (\text{Rp.}5.900 \times 16,7))) / 79,3 \text{ m}^3$$

$$= \text{Rp.}26.022,7$$

m = 6 biaya per unit :

$$= \text{Rp.}1.215.000 + ((\text{Rp.}5.900 \times 26,8) + 2 \times (\text{Rp.}5.900 \times 15,5) + 3$$

$$\times (\text{Rp.}5.900 \times 6,38) + 4 \times (\text{Rp.}5.900 \times 16,7) + 5 \times (\text{Rp.}5.900 \times$$

$$9,48))) / 88,78 \text{ m}^3$$

$$= \text{Rp.}26.394$$

Karena $m = 6 > m = 5$ maka yang diambil adalah $m = 5$, dengan jumlah order $79,30 \text{ m}^3$

Pemesanan 3 :

m = 1 biaya per unit :

$$= \text{Rp.}1.215.000 / 9,48 \text{ m}^3 = \text{Rp.} 128.164,6$$

m = 2 biaya per unit :

$$= (\text{Rp.}1.215.000 + (\text{Rp.}5.900 \times 8,91)) / 18,39 \text{ m}^3$$

$$= \text{Rp.} 68927,1$$

Jumlah order ke-3 adalah $18,39 \text{ m}^3$

- Perhitungan Metode *Least Unit Cost* kayu Mahoni

Biaya Pemesanan/pesan (A) = Rp. 1.215.000

Biaya Penyimpanan/ m^3 (h) = Rp 3.700

Pemesanan 1 :

m = 1 biaya per unit :

$$= \text{Rp.}1.215.000 / 3,77 \text{ m}^3 = \text{Rp.} 32.228,17$$

m =2 biaya per unit :

$$= (\text{Rp.}1.215.000 + (\text{Rp.}3.700 \times 1,81)) / 5,58 \text{ m}^3$$

$$= \text{Rp.} 218.942,11$$

m = 3 biaya per unit :

$$= \text{Rp.}1.215.000 + ((\text{Rp.}3.700 \times 1,81) + 2 \times (\text{Rp.}3.700 \times 5,87)) /$$

$$11,45 \text{ m}^3$$

$$= \text{Rp.}110.492,14$$

m = 4 biaya per unit :

$$= \text{Rp.}1.215.000 + ((\text{Rp.}3.700 \times 1,81) + 2 \times (\text{Rp.}3.700 \times 5,87) + 3$$

$$\times (\text{Rp.}3.700 \times 9,51))) / 20,96 \text{ m}^3$$

$$= \text{Rp.}65.395,8$$

m = 5 biaya per unit :

$$= \text{Rp.}1.215.000 + ((\text{Rp.}3.700 \times 1,81) + 2 \times (\text{Rp.}3.700 \times 5,87) + 3$$

$$\times (\text{Rp.}3.700 \times 9,51) + 4 \times (\text{Rp.}3.7 \times 8,96))) / 29,92 \text{ m}^3$$

$$= \text{Rp.}50.244,12$$

m = 6 biaya per unit :

$$= \text{Rp.}1.215.000 + ((\text{Rp.}3.700 \times 1,81) + 2 \times (\text{Rp.}3.700 \times 5,87) + 3$$

$$\times (\text{Rp.}3.700 \times 9,51) + 4 \times (\text{Rp.}3.7 \times 8,96) + 5 \times (\text{Rp.}3.700 \times$$

$$6,19))) / 36,11 \text{ m}^3$$

$$= \text{Rp.}44.802,52$$

m = 7 biaya per unit :

$$= \text{Rp.}1.215.000 + ((\text{Rp.}3.700 \times 1,81) + 2 \times (\text{Rp.}3.700 \times 5,87) + 3$$

$$\times (\text{Rp.}3.700 \times 9,51) + 4 \times (\text{Rp.}3.7 \times 8,96) + 5 \times (\text{Rp.}3.700 \times$$

$$6,19) + 6 \times (\text{Rp.}3.700 \times 5,31))) / 41,42 \text{ m}^3$$

$$= \text{Rp.}41.904,9$$

m = 8 biaya per unit :

$$= \text{Rp.}1.215.000 + ((\text{Rp.}3.700 \times 1,81) + 2 \times (\text{Rp.}3.700 \times 5,87) + 3$$

$$\times (\text{Rp.}3.700 \times 9,51) + 4 \times (\text{Rp.}3.7 \times 8,96) + 5 \times (\text{Rp.}3.700 \times$$

$$6,19) + 6 \times (\text{Rp.}3.700 \times 5,31) + 7 \times (\text{Rp.}3.700 \times 6,39))) / 47,81$$

$$\text{m}^3$$

$$= \text{Rp.}39.765,78$$

m = 9 biaya per unit :

$$= \text{Rp.}1.215.000 + ((\text{Rp.}3.700 \times 1,81) + 2 \times (\text{Rp.}3.700 \times 5,87) + 3 \times (\text{Rp.}3.700 \times 9,51) + 4 \times (\text{Rp.}3.7 \times 8,96) + 5 \times (\text{Rp.}3.700 \times 6,19) + 6 \times (\text{Rp.}3.700 \times 5,31) + 7 \times (\text{Rp.}3.700 \times 6,39) + 8 \times (\text{Rp.}3.700 \times 2,3)) / 50,11 \text{ m}^3$$

$$= \text{Rp.}39.299,18$$

m =10 biaya per unit :

$$= \text{Rp.}1.215.000 + ((\text{Rp.}3.700 \times 1,81) + 2 \times (\text{Rp.}3.700 \times 5,87) + 3 \times (\text{Rp.}3.700 \times 9,51) + 4 \times (\text{Rp.}3.7 \times 8,96) + 5 \times (\text{Rp.}3.700 \times 6,19) + 6 \times (\text{Rp.}3.700 \times 5,31) + 7 \times (\text{Rp.}3.700 \times 6,39) + 8 \times (\text{Rp.}3.700 \times 2,3) + 9 \times (\text{Rp.}3.700 \times 3,46)) / 53,57 \text{ m}^3$$

$$= \text{Rp.}38.911,7$$

m =11 biaya per unit :

$$= \text{Rp.}1.215.000 + ((\text{Rp.}3.700 \times 1,81) + 2 \times (\text{Rp.}3.700 \times 5,87) + 3 \times (\text{Rp.}3.700 \times 9,51) + 4 \times (\text{Rp.}3.7 \times 8,96) + 5 \times (\text{Rp.}3.700 \times 6,19) + 6 \times (\text{Rp.}3.700 \times 5,31) + 7 \times (\text{Rp.}3.700 \times 6,39) + 8 \times (\text{Rp.}3.700 \times 2,3) + 9 \times (\text{Rp.}3.700 \times 3,46) + 10 \times (\text{Rp.}3.700 \times 1,07)) / 54,64 \text{ m}^3$$

$$= \text{Rp.}38.874,27$$

m =12 biaya per unit :

$$= \text{Rp.}1.215.000 + ((\text{Rp.}3.700 \times 1,81) + 2 \times (\text{Rp.}3.700 \times 5,87) + 3 \times (\text{Rp.}3.700 \times 9,51) + 4 \times (\text{Rp.}3.7 \times 8,96) + 5 \times (\text{Rp.}3.700 \times 6,19) + 6 \times (\text{Rp.}3.700 \times 5,31) + 7 \times (\text{Rp.}3.700 \times 6,39) + 8 \times (\text{Rp.}3.700 \times 2,3) + 9 \times (\text{Rp.}3.700 \times 3,46) + 10 \times (\text{Rp.}3.700 \times 1,07) + 11 \times (\text{Rp.}3700 \times 5,3)) / 59,94 \text{ m}^3$$

$$= \text{Rp.}39.035,7$$

Karena $m = 12 > m = 11$, maka yang diambil adalah $m = 11$ dengan jumlah order $54,64 \text{ m}^3$

Pemesanan 2 :

m = 1 biaya per unit :

$$= \text{Rp.}1.215.000 / 10,4 \text{ m}^3 = \text{Rp.} 116.826$$