

## DAFTAR PUSTAKA

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ayat 1 UU Cipta Kerja tentang pesangon untuk karyawan yang terkena K (pemutusan hubungan kerja).

## LAMPIRAN

### Lampiran 1

Lampiran 1 berisi data hasil wawancara tentang permintaan, kapasitas produksi dan biaya PT. Maruki International Indonesia.

Tabel Permintaan

| NO | Bulan         | Satuan | Type Modern | Type Tradisional | Jumlah |
|----|---------------|--------|-------------|------------------|--------|
| 1  | Nov-21        | Set    | 98          | 74               | 172    |
|    |               | Set    | 131         | 40               | 171    |
|    |               | Set    | 93          | 40               | 133    |
|    |               | TOTAL  | 322         | 154              | 476    |
| 2  | DES 2021      | Set    | 150         | 86               | 236    |
|    |               | Set    | 160         | 39               | 199    |
|    |               | Set    | 123         | 51               | 174    |
|    |               | Set    | 122         | 62               | 184    |
|    |               | TOTAL  | 555         | 238              | 793    |
| 3  | JANUARI-2022  | Set    | 168         | 31               | 199    |
|    |               | Set    | 143         | 27               | 170    |
|    |               | TOTAL  | 311         | 58               | 369    |
| 4  | FEBRUARI-2022 | Set    | 153         | 50               | 203    |
|    |               | Set    | 112         | 38               | 150    |
|    |               | Set    | 109         | 77               | 186    |
|    |               | Set    | 107         | 56               | 163    |
|    |               | TOTAL  | 481         | 221              | 702    |
| 5  | MARET-2022    | Set    | 145         | 29               | 174    |
|    |               | Set    | 201         | 20               | 221    |
|    |               | Set    | 116         | 50               | 166    |
|    |               | TOTAL  | 462         | 99               | 561    |
| 6  | Apr-22        | Set    | 158         | -                | 158    |
|    |               | Set    | 171         | 40               | 211    |
|    |               | Set    | 116         | 33               | 149    |
|    |               | TOTAL  | 445         | 73               | 518    |
| 7  | MEI-2022      | Set    | 103         | 39               | 142    |
|    |               | Set    | 111         | 56               | 167    |
|    |               | TOTAL  | 214         | 95               | 309    |
| 8  | JUNI-2022     | Set    | 111         | 32               | 143    |
|    |               | Set    | 149         | 89               | 238    |
|    |               | Set    | 178         | 52               | 230    |
|    |               | Set    | 153         | 42               | 195    |
|    |               | TOTAL  | 591         | 215              | 806    |
| 9  | JULI-2022     | Set    | 165         | 43               | 208    |
|    |               | Set    | 115         | 64               | 179    |
|    |               | Set    | 125         | 103              | 228    |
|    |               | TOTAL  | 405         | 210              | 615    |
| 10 | AGUSTUS-2022  | Set    | 91          | 73               | 164    |
|    |               | Set    | 114         | 52               | 166    |
|    |               | Set    | 104         | 66               | 170    |
|    |               | TOTAL  | 309         | 191              | 500    |
| 11 | Sep-22        | Set    | 133         | 36               | 169    |
|    |               | Set    | 232         | 50               | 282    |
|    |               | Set    | 113         | 24               | 137    |
|    |               | TOTAL  | 478         | 110              | 588    |
| 12 | OKT-2022      | Set    | 162         | 12               | 174    |
|    |               | Set    | 246         | 35               | 281    |
|    |               | Set    | 133         | 70               | 203    |
|    |               | Set    | 104         | 40               | 144    |
|    |               | TOTAL  | 645         | 157              | 802    |



| NO | Bulan         | Satuan | Type<br>Moderen | Type<br>Tradisional | Jumlah     |
|----|---------------|--------|-----------------|---------------------|------------|
| 1  | Nov-22        | Set    | 126             | 36                  | 162        |
|    |               | Set    | 243             | 14                  | 257        |
|    |               | Set    | 176             | 109                 | 285        |
|    | TOTAL         | Set    | <b>545</b>      | <b>159</b>          | <b>704</b> |
| 2  | DES 2022      | Set    | 93              | 75                  | 168        |
|    |               | Set    | 184             | 46                  | 230        |
|    |               | Set    | 176             | 16                  | 192        |
|    |               | Set    | 121             | 32                  | 153        |
|    | TOTAL         | Set    | <b>574</b>      | <b>169</b>          | <b>743</b> |
| 3  | JANUARI-2023  | Set    | 89              | 38                  | 127        |
|    | TOTAL         | Set    | <b>89</b>       | <b>38</b>           | <b>127</b> |
| 4  | FEBRUARI-2023 | Set    | 180             | 42                  | 222        |
|    |               | Set    | 195             | 20                  | 215        |
|    |               | Set    | 174             | 26                  | 200        |
|    |               | Set    | 143             | 41                  | 184        |
|    | TOTAL         | Set    | <b>692</b>      | <b>129</b>          | <b>821</b> |
| 5  | MARET-2023    | Set    | 159             | 30                  | 189        |
|    |               | Set    | 198             | 10                  | 208        |
|    |               | Set    | 101             | 84                  | 185        |
|    |               | Set    | 122             | 35                  | 157        |
|    | TOTAL         | Set    | <b>580</b>      | <b>159</b>          | <b>739</b> |
| 6  | Apr-23        | Set    | 58              | 47                  | 105        |
|    |               | Set    | 86              | 45                  | 131        |
|    |               | Set    | 123             | 57                  | 180        |
|    | TOTAL         | Set    | <b>267</b>      | <b>149</b>          | <b>416</b> |
| 7  | MEI-2023      | Set    | 128             | 40                  | 168        |
|    |               | Set    | 174             | -                   | 174        |
|    | TOTAL         | Set    | <b>302</b>      | <b>40</b>           | <b>342</b> |
| 8  | JUNI-2023     | Set    | 264             | 30                  | 294        |
|    |               | Set    | 211             | -                   | 211        |
|    |               | Set    | 195             | -                   | 195        |
|    | TOTAL         | Set    | <b>670</b>      | <b>30</b>           | <b>700</b> |
| 9  | JULI-2023     | Set    | 254             | -                   | 254        |
|    |               | Set    | 234             | -                   | 234        |
|    |               | Set    | 207             | -                   | 207        |
|    |               | Set    | 106             | 46                  | 152        |
|    | TOTAL         | Set    | <b>801</b>      | <b>46</b>           | <b>847</b> |
| 10 | AGUSTUS-2023  | Set    | 177             | 20                  | 197        |
|    |               | Set    | 266             | 46                  | 312        |
|    |               | Set    | 154             | 67                  | 221        |
|    | TOTAL         | Set    | <b>597</b>      | <b>133</b>          | <b>730</b> |
| 11 | Sep-23        | Set    | 120             | 45                  | 165        |
|    |               | Set    | 196             | 27                  | 223        |
|    |               | Set    | 102             | 98                  | 200        |
|    | TOTAL         | Set    | <b>418</b>      | <b>170</b>          | <b>588</b> |
| 12 | OKT-2023      | Set    | 183             | 58                  | 241        |
|    |               | Set    | 178             | 26                  | 204        |
|    |               | Set    | 138             | 40                  | 178        |
|    | TOTAL         | Set    | <b>499</b>      | <b>124</b>          | <b>623</b> |



Tabel Kapasitas dan Biaya Produksi

| <b>Kapasitas dan Jenis Biaya</b>                                                                        | <b>Jumlah</b>            |
|---------------------------------------------------------------------------------------------------------|--------------------------|
| Kapasitas Produksi                                                                                      | 35 set/hari              |
| Tenaga Kerja Tetap                                                                                      | 239 Orang                |
| Jam & Hari Kerja                                                                                        | 8 Jam                    |
| Jumlah Shift                                                                                            | 1 Shift                  |
| Hari Kerja                                                                                              | 5 Hari                   |
| Kapasitas Inventory                                                                                     | 350 Set                  |
| <b>Biaya Inventory</b><br>Listrik<br>Air<br>Maintenance<br>Remaking<br>Packing<br>Pegawai<br>Kebersihan | Rp. 148.571/set          |
| <b>Biaya Material</b><br>Bahan baku langsung<br>Bahan baku tidak langsung                               | Rp. 4.051.429            |
| Biaya Tenaga Kerja                                                                                      | Rp. 5.796.156/pekerja    |
| Biaya Overtime                                                                                          | NA                       |
| Biaya Hiring                                                                                            | NA (tidak di-budget-kan) |
| Biaya Firing                                                                                            | NA (tidak di-budget-kan) |



## Lampiran 2

Lampiran 2 berisi tentang Perhitungan biaya produksi PT. Maruki International Indonesia periode November 2022 – Oktober 2023 berdasarkan variabel pada penelitian ini.

Tabel Perencanaan Produksi Perusahaan

| Periode                   | Nov           | Des           | Jan           | Feb           | Mar           | Apr           |
|---------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>Demand</b>             | 704           | 743           | 127           | 821           | 739           | 416           |
| <b>Worker</b>             | 239           | 239           | 239           | 239           | 239           | 239           |
| <b>Labour Cost (Rp)</b>   | 1.385.281.284 | 1.385.281.284 | 1.385.281.284 | 1.385.281.284 | 1.385.281.284 | 1.385.281.284 |
| <b>Unit Produced</b>      | 710           | 740           | 455           | 668           | 713           | 349           |
| <b>Material Cost (Rp)</b> | 2.876.514.590 | 2.998.057.460 | 1.843.400.195 | 2.706.354.572 | 2.888.668.877 | 1.413.948.721 |
| <b>Net Inventory</b>      | 6,00          | 3,00          | 331,00        | 178,00        | 152,00        | 85,00         |
| <b>Holding Cost (Rp)</b>  | 891.426       | 445.713       | 49.177.001    | 26.445.638    | 22.582.792    | 12.628.535    |
| <b>Total Cost</b>         | 4.262.687.300 | 4.383.784.457 | 3.277.858.480 | 4.118.081.494 | 4.296.532.953 | 2.811.858.540 |

Lanjutan Tabel Perencanaan Produksi Perusahaan

| Mei           | Jun           | Jul           | Agu           | Sep           | Okt           | Total          |
|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| 342           | 700           | 847           | 730           | 588           | 623           | 7380           |
| 239           | 239           | 239           | 239           | 239           | 239           | 2868           |
| 1.385.281.284 | 1.385.281.284 | 1.385.281.284 | 1.385.281.284 | 1.385.281.284 | 1.385.281.284 | 16.623.375.408 |
| 600           | 636           | 615           | 690           | 689           | 635           | 7500           |
| 2.430.857.400 | 2.576.708.844 | 2.491.628.835 | 2.795.486.010 | 2.791.434.581 | 2.572.657.415 | 30.385.717.500 |
| 343,00        | 279,00        | 47,00         | 7,00          | 108,00        | 120,00        | 1659           |
| 50.959.853    | 41.451.309    | 6.982.837     | 1.039.997     | 16.045.668    | 17.828.520    | 246.479.289    |
| 3.867.098.537 | 4.003.441.437 | 3.883.892.956 | 4.181.807.291 | 4.192.761.533 | 3.975.767.219 | 47.255.572.197 |



### Lampiran 3

Lampiran 3 berisi tentang Perbandingan biaya perencanaan agregat untuk periode November 2023 – Oktober 2024.

| Biaya                 | Pengendalian Tenaga Kerja | Pengendalian Persediaan Plus Overtime | Pemrograman Linear |
|-----------------------|---------------------------|---------------------------------------|--------------------|
| <i>Hiring Cost</i>    | Rp -                      | Rp -                                  | Rp -               |
| <i>Firing Cost</i>    | Rp 2.538.716.328          | Rp 191.273.148                        | Rp 208.661.616     |
| <i>Material Cost</i>  | Rp 30.079.797.882         | Rp 30.425.242.669                     | Rp 30.000.831.745  |
| <i>Labour Cost</i>    | Rp 14.484.593.844         | Rp 14.397.651.504                     | Rp 14.791.790.112  |
| <i>Inventory Cost</i> | Rp 18.520.362             | Rp 168.159.454                        | Rp 208.192.685     |
| <i>Overtime Cost</i>  | Rp -                      | Rp 834.512.449                        | Rp 180.719.454     |
| <i>Total Cost</i>     | Rp 47.121.628.416         | Rp 46.016.839.223                     | Rp 45.390.195.612  |



## Lampiran 4

Lampiran 4 berisi tentang dokumentasi observasi dan wawancara di Perusahaan.



Gambar. Observasi Perusahaan



Gambar. Wawancara





Gambar. Pengolahan Material



Gambar. Proses Produksi





Gambar. Perakitan Kerangka *Butsudan*



Gambar. Pengamplasan





Gambar. *Finish*



## Lampiran 5

Lampiran 5 berisi rekapitulasi perhitungan perencanaan agregat Pengendalian Tenaga Kerja dan Pengendalian Persediaan *Plus Overtime*.

### Perencanaan Agregat Pengendalian Tenaga Kerja :

#### 1) *Resources* :

##### a) *Active Days*

Hari kerja periode November 2023 – Oktober 2024 telah direkap pada tabel.4 sehingga total *active days* adalah 240 hari.

##### b) *Unit/Worker*

##### **November**

Kapasitas Produksi TK/hari = 0,14949

Jumlah Hari = 22

*Unit/Worker* =  $0,14949 \times 22$

*Unit/Worker* = 3,29

##### **Desember**

Kapasitas Produksi TK/hari = 0,14949

Jumlah Hari = 19

*Unit/Worker* =  $0,14949 \times 19$

*Unit/Worker* = 2,84

##### **Januari**

Kapasitas Produksi TK/hari = 0,14949

Jumlah Hari = 22

*Unit/Worker* =  $0,14949 \times 22$

*Unit/Worker* = 3,29

##### **Februari**

Kapasitas Produksi TK/hari = 0,14949

Jumlah Hari = 19

*nit/Worker* =  $0,14949 \times 19$

*nit/Worker* = 2,84



**Maret**

Kapasitas Produksi TK/hari = 0,14949  
 Jumlah Hari = 18  
*Unit/Worker* =  $0,14949 \times 21$   
*Unit/Worker* = 2,69

**April**

Kapasitas Produksi TK/hari = 0,14949  
 Jumlah Hari = 16  
*Unit/Worker* =  $0,14949 \times 16$   
*Unit/Worker* = 2,62

**Mei**

Kapasitas Produksi TK/hari = 0,14949  
 Jumlah Hari = 18  
*Unit/Worker* =  $0,14949 \times 18$   
*Unit/Worker* = 2,69

**Juni**

Kapasitas Produksi TK/hari = 0,14949  
 Jumlah Hari = 18  
*Unit/Worker* =  $0,14949 \times 18$   
*Unit/Worker* = 2,69

**Juli**

Kapasitas Produksi TK/hari = 0,14949  
 Jumlah Hari = 23  
*Unit/Worker* =  $0,14949 \times 23$   
*Unit/Worker* = 3,44

**gustus**

apasitas Produksi TK/hari = 0,14949

$$\begin{aligned}
 \text{Jumlah Hari} &= 22 \\
 \text{Unit/Worker} &= 0,14949 \times 22 \\
 \text{Unit/Worker} &= 3,29
 \end{aligned}$$

### September

$$\begin{aligned}
 \text{Kapasitas Produksi TK/hari} &= 0,14949 \\
 \text{Jumlah Hari} &= 20 \\
 \text{Unit/Worker} &= 0,14949 \times 20 \\
 \text{Unit/Worker} &= 2,99
 \end{aligned}$$

### Oktober

$$\begin{aligned}
 \text{Kapasitas Produksi TK/hari} &= 0,14949 \\
 \text{Jumlah Hari} &= 23 \\
 \text{Unit/Worker} &= 0,14949 \times 23 \\
 \text{Unit/Worker} &= 3,44
 \end{aligned}$$

#### c) Demand

Permintaan berdasarkan hasil peramalan permintaan dari metode terbaik pada tabel 12.

#### d) Worker Needed

### November

$$\begin{aligned}
 \text{Demand} &= 714 \\
 \text{Unit/Worker} &= 3,29 \\
 \text{Worker Needed} &= 714 : 3,29 \\
 \text{Worker Needed} &= 217,02 \approx 218 \text{ Orang}
 \end{aligned}$$

### Desember

$$\begin{aligned}
 \text{Demand} &= 740 \\
 \text{Unit/Worker} &= 2,84 \\
 \text{Worker Needed} &= 740 : 2,84 \\
 \text{Worker Needed} &= 260,56 \approx 261 \text{ Orang}
 \end{aligned}$$

### Januari

$$\begin{aligned}
 \text{Demand} &= 189 \\
 \text{Unit/Worker} &= 3,29 \\
 \text{Worker Needed} &= 189 : 3,29
 \end{aligned}$$



*Worker Needed* = 57,44 ≈ 58 Orang

### **Februari**

*Demand* = 752

*Unit/Worker* = 2,84

*Worker Needed* = 752 : 2,84

*Worker Needed* = 264,78 ≈ 265 Orang

### **Maret**

*Demand* = 748

*Unit/Worker* = 2,69

*Worker Needed* = 748 : 2,69

*Worker Needed* = 278,06 ≈ 278 Orang

### **April**

*Demand* = 449

*Unit/Worker* = 2,39

*Worker Needed* = 449 : 2,39

*Worker Needed* = 187,86 ≈ 188 Orang

### **Mei**

*Demand* = 350

*Unit/Worker* = 2,69

*Worker Needed* = 350 : 2,69

*Worker Needed* = 130,11 ≈ 131 Orang

### **Juni**

*Demand* = 665

*Unit/Worker* = 2,69

*Worker Needed* = 665 : 2,69

*Worker Needed* = 247,21 ≈ 248 Orang

### **Juli**

*Demand* = 833

*Unit/Worker* = 2,73

*Worker Needed* = 833 : 2,73

*Worker Needed* = 304,68 ≈ 305 Orang

### **Agustus**



|               |                              |
|---------------|------------------------------|
| Demand        | = 742                        |
| Unit/Worker   | = 3,29                       |
| Worker Needed | = $742 \times 3,29$          |
| Worker Needed | = $225,53 \approx 226$ Orang |

### September

|               |                              |
|---------------|------------------------------|
| Demand        | = 603                        |
| Unit/Worker   | = 2,99                       |
| Worker Needed | = $603 \times 2,99$          |
| Worker Needed | = $201,67 \approx 202$ Orang |

### Oktober

|               |                              |
|---------------|------------------------------|
| Demand        | = 620                        |
| Unit/Worker   | = 3,44                       |
| Worker Needed | = $620 : 3,44$               |
| Worker Needed | = $180,23 \approx 181$ Orang |

e) Worker hiring/lay off

### Worker Hiring :

#### November

Tidak ada Worker Hiring di bulan November

#### Desember

|                  |               |
|------------------|---------------|
| Worker Needed    | = 261         |
| Worker Available | = 218         |
| Worker Hiring    | = $261 - 218$ |
| Worker Hiring    | = 43          |

#### Januari

Tidak ada Worker Hiring di bulan Januari

#### Februari

|                  |              |
|------------------|--------------|
| Worker Needed    | = 265        |
| Worker Available | = 58         |
| Worker Hiring    | = $265 - 58$ |
| Worker Hiring    | = 207        |

#### Maret

|               |       |
|---------------|-------|
| Worker Needed | = 278 |
|---------------|-------|



*Worker Available* = 265  
*Worker Hiring* = 278 - 265  
*Worker Hiring* = 13

### April

Tidak ada *Worker Hiring* di bulan April

### Mei

Tidak ada *Worker Hiring* di bulan Mei

### Juni

*Worker Needed* = 248  
*Worker Available* = 131  
*Worker Hiring* = 248 - 131  
*Worker Hiring* = 117

### Juli

Tidak ada *Worker Hiring* di bulan Juli

### Agustus

Tidak ada *Worker Hiring* di bulan Agustus

### September

Tidak ada *Worker Hiring* di bulan September

### Oktober

Tidak ada *Worker Hiring* di bulan Oktober

### *Worker Firing* :

### November

*Worker Needed* = 218  
*Worker Available* = 239  
*Worker Firing* = 239 - 218  
*Worker Firing* = 21

### Desember

Tidak ada *Worker Firing* di bulan Desember



### Januari

*Worker Needed* = 58

*Worker Available* = 261  
*Worker Firing* = 261 - 58  
*Worker Firing* = 203

### Februari

Tidak ada *Worker Firing* di bulan Februari

### Maret

Tidak ada *Worker Firing* di bulan Maret

### April

*Worker Needed* = 188  
*Worker Available* = 278  
*Worker Firing* = 278 - 188  
*Worker Firing* = 90

### Mei

*Worker Needed* = 131  
*Worker Available* = 188  
*Worker Firing* = 188 - 131  
*Worker Firing* = 57

### Juni

Tidak ada *Worker Firing* di bulan Juni

### Juli

*Worker Needed* = 243  
*Worker Available* = 248  
*Worker Firing* = 248 - 243  
*Worker Firing* = 5

### Agustus

*Worker Needed* = 226  
*Worker Available* = 243  
*Worker Firing* = 243 - 226  
*Worker Firing* = 17

### September

*Worker Needed* = 202  
*Worker Available* = 226



*Worker Firing* = 226 - 202

*Worker Firing* = 24

### **Oktober**

*Worker Needed* = 181

*Worker Available* = 202

*Worker Firing* = 202 - 181

*Worker Firing* = 21

### f) *Unit produces*

#### **Desember**

*Unit/worker* = 2,84

*Worker Used* = 261

*Unit Produces* = 2,84 x 261

*Unit Produces* = 741,34 set

#### **Januari**

*Unit/worker* = 3,29

*Worker Used* = 58

*Unit Produces* = 3,29 x 58

*Unit Produces* = 190,75 set

#### **Februari**

*Unit/worker* = 2,84

*Worker Used* = 265

*Unit Produces* = 2,84 x 265

*Unit Produces* = 752,70 set

#### **Maret**

*Unit/worker* = 2,69

*Worker Used* = 278

*Unit Produces* = 2,69 x 278

*Unit Produces* = 748,07 set

#### **April**

*Unit/worker* = 2,39

*Worker Used* = 188

*Unit Produces* = 2,39 x 188



*Unit Produces* = 449,68 set

**Mei**

*Unit/worker* = 2,69

*Worker Used* = 131

*Unit Produces* = 2,69 x 131

*Unit Produces* = 352,51 set

**Juni**

*Unit/worker* = 2,69

*Worker Used* = 248

*Unit Produces* = 2,69 x 248

*Unit Produces* = 667,34 set

**Juli**

*Unit/worker* = 3,44

*Worker Used* = 243

*Unit Produces* = 3,44 x 243

*Unit Produces* = 835,52 set

**Agustus**

*Unit/worker* = 3,29

*Worker Used* = 226

*Unit Produces* = 3,29 x 226

*Unit Produces* = 743,29 set

**September**

*Unit/worker* = 2,99

*Worker Used* = 202

*Unit Produces* = 2,99 x 202

*Unit Produces* = 603,96 set

**Oktober**

*Unit/worker* = 3,44

*Worker Used* = 181

*Unit Produces* = 3,44 x 181

*Unit Produces* = 622,35 set

*Unit Inventory (end of month)*



Persediaan pada bulan Januari sampai Oktober 2024 berikut :

### Desember

|                      |                         |
|----------------------|-------------------------|
| Persediaan November  | = 2,98                  |
| <i>Unit Produces</i> | = 741,34                |
| <i>Demand</i>        | = 714                   |
| Persediaan           | = $2,98 + 741,34 - 714$ |
|                      | = 4,32 set              |

### Januari

|                      |                         |
|----------------------|-------------------------|
| Persediaan Desember  | = 4,32                  |
| <i>Unit Produces</i> | = 190,75                |
| <i>Demand</i>        | = 189                   |
| Persediaan           | = $4,32 + 190,75 - 189$ |
| Persediaan           | = 6,07 set              |

### Februari

|                      |                         |
|----------------------|-------------------------|
| Persediaan Januari   | = 6,07                  |
| <i>Unit Produces</i> | = 752,70                |
| <i>Demand</i>        | = 752                   |
| Persediaan           | = $6,07 + 752,70 - 752$ |
| Persediaan           | = 6,78 set              |

### Maret

|                      |                         |
|----------------------|-------------------------|
| Persediaan Februari  | = 6,78                  |
| <i>Unit Produces</i> | = 748,07                |
| <i>Demand</i>        | = 748                   |
| Persediaan           | = $6,78 + 748,07 - 748$ |
| Persediaan           | = 6,85 set              |

### April

|                      |                         |
|----------------------|-------------------------|
| Persediaan Maret     | = 6,85                  |
| <i>Unit Produces</i> | = 449,68                |
| <i>Demand</i>        | = 449                   |
| Persediaan           | = $6,85 + 449,68 - 449$ |
| Persediaan           | = 7,53 set              |



Persediaan April = 7,53  
*Unit Produces* = 352,51  
*Demand* = 350  
 Persediaan =  $7,53 + 352,51 - 350$   
 Persediaan = 10,03 set

### **Juni**

Persediaan Mei = 10,03  
*Unit Produces* = 667,34  
*Demand* = 665  
 Persediaan =  $10,03 + 667,34 - 665$   
 Persediaan = 12,38 set

### **Juli**

Persediaan Juni = 12,38  
*Unit Produces* = 835,52  
*Demand* = 833  
 Persediaan =  $12,38 + 835,52 - 833$   
 Persediaan = 14,90 set

### **Agustus**

Persediaan Juli = 14,90  
*Unit Produces* = 743,29  
*Demand* = 742  
 Persediaan =  $14,90 + 743,29 - 742$   
 Persediaan = 16,19 set

### **September**

Persediaan Agustus = 16,19  
*Unit Produces* = 603,96  
*Demand* = 603  
 Persediaan =  $16,19 + 603,96 - 603$   
 Persediaan = 17,15 set

### **Oktober**

Persediaan September = 17,15  
*Unit Produces* = 622,35



|               |                        |
|---------------|------------------------|
| <i>Demand</i> | = 620                  |
| Persediaan    | = 17,15 + 622,35 - 620 |
| Persediaan    | = 19,49 set            |

## 2) **Cost :**

### a) *Hiring Cost*

Total *hiring cost* dalam 1 tahun yakni Rp -.

### b) *Firing Cost*

**November 2023 s/d Oktober 2024**

*Total Worker Firing* = 438 orang

*Firing Cost/Worker* = Rp. 5.796.156

*Firing Cost* = 438 x Rp. 5.796.156

= Rp. 2.538.716.328

Jadi total *Firing Cost* sepanjang 1 tahun yaitu Rp. 2.538.716.328.

### c) *Labour Cost*

**November 2023 s/d Oktober 2024**

Upah tenaga kerja = Rp. 5.796.156 /Bulan

*Total Worker Used* = 2499 orang

Biaya tenaga kerja = Rp. 5.796.156 x 2499

= Rp. 14.484.593.844

Jadi total *Labour Cost* sepanjang 1 tahun yaitu Rp. 14.484.593.844.

### d) *Holding Cost*

**Desember**

Persediaan = 4,32

Biaya simpan = Rp. 148.571/set

*Holding Cost* = 4,32 x 148.571

= Rp. 641.541



**Januari**

Persediaan = 6,07

Biaya simpan = Rp. 148.571/set

$$\begin{aligned}\text{Holding Cost} &= 6,07 \times 148.571 \\ &= \text{Rp. } 902.266\end{aligned}$$

### Februari

$$\begin{aligned}\text{Persediaan} &= 6,78 \\ \text{Biaya simpan} &= \text{Rp. } 148.571/\text{set} \\ \text{Holding Cost} &= 6,78 \times 148.571 \\ &= \text{Rp. } 1.006.921\end{aligned}$$

### Maret

$$\begin{aligned}\text{Persediaan} &= 6,85 \\ \text{Biaya simpan} &= \text{Rp. } 148.571/\text{set} \\ \text{Holding Cost} &= 6,85 \times 148.571 \\ &= \text{Rp. } 1.017.333\end{aligned}$$

### April

$$\begin{aligned}\text{Persediaan} &= 7,53 \\ \text{Biaya simpan} &= \text{Rp. } 148.571/\text{set} \\ \text{Holding Cost} &= 7,53 \times 148.571 \\ &= \text{Rp. } 1.118.245\end{aligned}$$

### Mei

$$\begin{aligned}\text{Persediaan} &= 10,03 \\ \text{Biaya simpan} &= \text{Rp. } 148.571/\text{set} \\ \text{Holding Cost} &= 10,03 \times 148.571 \\ &= \text{Rp. } 1.490.838\end{aligned}$$

### Juni

$$\begin{aligned}\text{Persediaan} &= 12,38 \\ \text{Biaya simpan} &= \text{Rp. } 148.571/\text{set} \\ \text{Holding Cost} &= 12,38 \times 148.571 \\ &= \text{Rp. } 1.838.955\end{aligned}$$

### Juli

$$\begin{aligned}\text{Persediaan} &= 14,90 \\ \text{Biaya simpan} &= \text{Rp. } 148.571/\text{set} \\ \text{Holding Cost} &= 14,90 \times 148.571 \\ &= \text{Rp. } 2.213.995\end{aligned}$$



**Agustus**

Persediaan = 16,19

Biaya simpan = Rp. 148.571/set

*Holding Cost* =  $16,19 \times 148.571$   
= Rp. 2.405.097

**September**

Persediaan = 17,15

Biaya simpan = Rp. 148.571/set

*Holding Cost* =  $17,15 \times 148.571$   
= Rp. 2.547.348

**Oktober**

Persediaan = 19,49

Biaya simpan = Rp. 148.571/set

*Holding Cost* =  $19,49 \times 148.571$   
= Rp. 2.895.788

Dimana total *holding cost* dalam 1 tahun yakni Rp. 18.520.362.

e) *Material Cost***Desember**

Unit Producess = 741,34 set

Material Cost/Set = Rp. 4.051.429

Material Cost = Unit Producess  $\times$  Material Cost  
=  $715,18 \times \text{Rp. } 4.051.429$   
= Rp. 3.003.497.860.

**Januari**

Unit Producess = 190,75 set

Material Cost/Set = Rp. 4.051.429

Material Cost = Unit Producess  $\times$  Material Cost  
=  $190,75 \times \text{Rp. } 4.051.429$   
= Rp. 772.829.859.

**Februari**

Unit Producess = 752,70 set

Material Cost/Set = Rp. 4.051.429



$$\begin{aligned}
 \text{Material Cost} &= \text{Unit Producess} \times \text{Material Cost} \\
 &= 752,70 \times \text{Rp. } 4.051.429 \\
 &= \text{Rp. } 3.049.528.478.
 \end{aligned}$$

### **Maret**

$$\begin{aligned}
 \text{Unit Producess} &= 748.07 \text{ set} \\
 \text{Material Cost/Set} &= \text{Rp. } 4.051.429 \\
 \text{Material Cost} &= \text{Unit Producess} \times \text{Material Cost} \\
 &= 748,07 \times \text{Rp. } 4.051.429 \\
 &= \text{Rp. } 3.030.752.831.
 \end{aligned}$$

### **April**

$$\begin{aligned}
 \text{Unit Producess} &= 449,68 \text{ set} \\
 \text{Material Cost/Set} &= \text{Rp. } 4.051.429 \\
 \text{Material Cost} &= \text{Unit Producess} \times \text{Material Cost} \\
 &= 449,68 \times \text{Rp. } 4.051.429 \\
 &= \text{Rp. } 1.821.843.428.
 \end{aligned}$$

### **Mei**

$$\begin{aligned}
 \text{Unit Producess} &= 352,51 \text{ set} \\
 \text{Material Cost/Set} &= \text{Rp. } 4.051.429 \\
 \text{Material Cost} &= \text{Unit Producess} \times \text{Material Cost} \\
 &= 352,51 \times \text{Rp. } 4.051.429 \\
 &= \text{Rp. } 1.428.160.507.
 \end{aligned}$$

### **Juni**

$$\begin{aligned}
 \text{Unit Producess} &= 667,34 \text{ set} \\
 \text{Material Cost/Set} &= \text{Rp. } 4.051.429 \\
 \text{Material Cost} &= \text{Unit Producess} \times \text{Material Cost} \\
 &= 667,34 \times \text{Rp. } 4.051.429 \\
 &= \text{Rp. } 2.703.693.173.
 \end{aligned}$$

### **Juli**

$$\begin{aligned}
 \text{Unit Producess} &= 835,52 \text{ set} \\
 \text{Material Cost/Set} &= \text{Rp. } 4.051.429 \\
 \text{Material Cost} &= \text{Unit Producess} \times \text{Material Cost} \\
 &= 835,52 \times \text{Rp. } 4.051.429
 \end{aligned}$$



= Rp. 3.385.067.461.

### Agustus

Unit Producess = 743,29 set

Material Cost/Set = Rp. 4.051.429

Material Cost = Unit Producess × Material Cost

= 743,29 × Rp. 4.051.429

= Rp. 3.011.371.518.

### September

Unit Producess = 603,96 set

Material Cost/Set = Rp. 4.051.429

Material Cost = Unit Producess × Material Cost

= 603,96 × Rp. 4.051.429

= Rp. 2.446.890.775.

### Oktober

Unit Producess = 622,35 set

Material Cost/Set = Rp. 4.051.429

Material Cost = Unit Producess × Material Cost

= 622,35 × Rp. 4.051.429

= Rp. 2.521.387.697.

Dimana total material cost dalam 1 tahun yakni Rp. 30.079.797.882.

#### f) Total Cost

*Total Cost* = *Hiring Cost* + *Firing Cost* + *Labour Cost* + *Holding Cost*

= 0 + 2.538.716.328 + 14.484.593.844 + 18.520.362

= Rp. 17.041.830.534.

### Perencanaan Agregat Pengendalian Persediaan Plus Overtime :

#### 1) Resources :

##### a) Active Days

Hari kerja periode November 2023 – Oktober 2024 telah direkap pada tabel.4 sehingga total *active days* adalah 240 hari.



*nit/Worker*

**ovember**

apasitas Produksi TK/hari = 0,14949

Jumlah Hari = 22  
*Unit/Worker* =  $0,14949 \times 22$   
*Unit/Worker* = 3,29

#### **Desember**

Kapasitas Produksi TK/hari = 0,14949  
 Jumlah Hari = 19  
*Unit/Worker* =  $0,14949 \times 19$   
*Unit/Worker* = 2,84

#### **Januari**

Kapasitas Produksi TK/hari = 0,14949  
 Jumlah Hari = 22  
*Unit/Worker* =  $0,14949 \times 22$   
*Unit/Worker* = 3,29

#### **Februari**

Kapasitas Produksi TK/hari = 0,14949  
 Jumlah Hari = 19  
*Unit/Worker* =  $0,14949 \times 19$   
*Unit/Worker* = 2,84

#### **Maret**

Kapasitas Produksi TK/hari = 0,14949  
 Jumlah Hari = 18  
*Unit/Worker* =  $0,14949 \times 21$   
*Unit/Worker* = 2,69

#### **April**

Kapasitas Produksi TK/hari = 0,14949  
 Jumlah Hari = 16  
*Unit/Worker* =  $0,14949 \times 16$   
*Unit/Worker* = 2,62

#### **Mei**

apasitas Produksi TK/hari = 0,14949  
 umlah Hari = 18  
 nit/Worker =  $0,14949 \times 18$



$$\text{Unit/Worker} = 2,69$$

### **Juni**

$$\text{Kapabilitas Produksi TK/hari} = 0,14949$$

$$\text{Jumlah Hari} = 18$$

$$\text{Unit/Worker} = 0,14949 \times 18$$

$$\text{Unit/Worker} = 2,69$$

### **Juli**

$$\text{Kapabilitas Produksi TK/hari} = 0,14949$$

$$\text{Jumlah Hari} = 23$$

$$\text{Unit/Worker} = 0,14949 \times 23$$

$$\text{Unit/Worker} = 3,44$$

### **Agustus**

$$\text{Kapabilitas Produksi TK/hari} = 0,14949$$

$$\text{Jumlah Hari} = 22$$

$$\text{Unit/Worker} = 0,14949 \times 22$$

$$\text{Unit/Worker} = 3,29$$

### **September**

$$\text{Kapabilitas Produksi TK/hari} = 0,14949$$

$$\text{Jumlah Hari} = 20$$

$$\text{Unit/Worker} = 0,14949 \times 20$$

$$\text{Unit/Worker} = 2,99$$

### **Oktober**

$$\text{Kapabilitas Produksi TK/hari} = 0,14949$$

$$\text{Jumlah Hari} = 23$$

$$\text{Unit/Worker} = 0,14949 \times 23$$

$$\text{Unit/Worker} = 3,44$$

### c) *Demand*

Permintaan berdasarkan hasil peramalan permintaan dari metode terbaik pada tabel 12.

*Worker Needed*

**November - April**

$$\text{rata-rata Demand November - April} = 598,67$$



$$\begin{aligned}
 \text{Rata-rata Unit/Worker November – April} &= 2,89 \\
 \text{Worker Needed} &= 598,67 : 2,89 \\
 &= 207,13 \approx 208 \text{ Orang}
 \end{aligned}$$

### Mei - Oktober

$$\begin{aligned}
 \text{Rata-rata Demand Mei – Oktober} &= 635,50 \\
 \text{Rata-rata Unit/Worker Mei – Oktober} &= 3,09 \\
 \text{Worker Needed} &= 635,50 : 3,09 \\
 &= 205,67 \approx 206 \text{ Orang}
 \end{aligned}$$

### e) Worker hiring/firing

#### Worker Hiring :

Tidak ada worker hiring sepanjang 1 tahun periode.

#### Worker Firing :

##### November

$$\begin{aligned}
 \text{Worker Needed} &= 208 \\
 \text{Worker Available} &= 239 \\
 \text{Worker Firing} &= 239 - 208 \\
 \text{Worker Firing} &= 31
 \end{aligned}$$

##### Mei

$$\begin{aligned}
 \text{Worker Needed} &= 206 \\
 \text{Worker Available} &= 208 \\
 \text{Worker Lay Off} &= 208 - 206 \\
 \text{Worker Lay Off} &= 2
 \end{aligned}$$

### f) Unit produces

##### Desember

$$\begin{aligned}
 \text{Unit/worker} &= 2,84 \\
 \text{Worker Used} &= 208 \\
 \text{Unit Produces} &= 2,84 \times 208 \\
 \text{Unit Produces} &= 590,80 \text{ set}
 \end{aligned}$$

##### Januari

$$\begin{aligned}
 \text{Unit/worker} &= 3,29 \\
 \text{Worker Used} &= 208 \\
 \text{Unit Produces} &= 3,29 \times 208
 \end{aligned}$$



*Unit Produces* = 684,09 set

### **Februari**

*Unit/worker* = 2,84

*Worker Used* = 208

*Unit Produces* = 2,84 x 208

*Unit Produces* = 590,80 set

### **Maret**

*Unit/worker* = 2,69

*Worker Used* = 208

*Unit Produces* = 2,69 x 208

*Unit Produces* = 559,71 set

### **April**

*Unit/worker* = 2,39

*Worker Used* = 208

*Unit Produces* = 2,39 x 208

*Unit Produces* = 497,52 set

### **Mei**

*Unit/worker* = 2,69

*Worker Used* = 206

*Unit Produces* = 2,69 x 206

*Unit Produces* = 554,33 set

### **Juni**

*Unit/worker* = 2,69

*Worker Used* = 206

*Unit Produces* = 2,69 x 206

*Unit Produces* = 554,33 set

### **Juli**

*Unit/worker* = 3,44

*Worker Used* = 206

*Unit Produces* = 3,44 x 206

*Unit Produces* = 708,30 set

**gustus**



|                      |              |
|----------------------|--------------|
| <i>Unit/worker</i>   | = 3,29       |
| <i>Worker Used</i>   | = 206        |
| <i>Unit Produces</i> | = 3,29 x 206 |
| <i>Unit Produces</i> | = 677,51 set |

**September**

|                      |              |
|----------------------|--------------|
| <i>Unit/worker</i>   | = 2,99       |
| <i>Worker Used</i>   | = 206        |
| <i>Unit Produces</i> | = 2,99 x 206 |
| <i>Unit Produces</i> | = 615,92 set |

**Desember**

|                      |              |
|----------------------|--------------|
| <i>Unit/worker</i>   | = 3,44       |
| <i>Worker Used</i>   | = 206        |
| <i>Unit Produces</i> | = 3,44 x 206 |
| <i>Unit Produces</i> | = 708,30 set |

g) **Overtime****Desember**

|                            |                       |
|----------------------------|-----------------------|
| <i>Demand</i>              | = 740                 |
| <i>Unit Produces</i>       | = 590,80              |
| <i>Worker Used</i>         | = 208                 |
| <i>Persediaan November</i> | = 1,18                |
| <i>Unit/Worker/Hour</i>    | = 0,01869 x 208       |
|                            | = 3,89                |
| <i>Kekurangan Produksi</i> | = 740 – 590,80 + 1,18 |
|                            | = 150,38              |
| <i>Overtime</i>            | = 150,38 : 3,89       |
|                            | = 38,65 ≈ 39 hour     |

**Agustus**

|                         |                 |
|-------------------------|-----------------|
| <i>Demand</i>           | = 742           |
| <i>Unit Produces</i>    | = 677,51        |
| <i>Worker Used</i>      | = 206           |
| <i>Persediaan Juli</i>  | = 17,98         |
| <i>Unit/Worker/Hour</i> | = 0,01869 x 206 |



$$\begin{aligned}
 &= 3,85 \\
 \text{Kekurangan Produksi} &= 742 - 677,51 + 17,98 \\
 &= 46,51 \\
 \text{Overtime} &= 46,51 : 3,85 \\
 &= 12,08 \approx 13 \text{ hour}
 \end{aligned}$$

h) *Net Inventory (end of month)*

Persediaan pada bulan Desember sampai Oktober 2024 berikut :

**Desember**

$$\begin{aligned}
 \text{Persediaan} &= \text{Persediaan November} + \text{Overtime} + \text{Unit Produces} - \\
 &\quad \text{Demand} \\
 &= 1,18 + 151,59 + 590,80 - 740 \\
 &= 3,57 \text{ set}
 \end{aligned}$$

**Januari**

$$\begin{aligned}
 \text{Persediaan} &= \text{Persediaan Desember} + \text{Unit Produces} - \text{Demand} \\
 &= 3,57 + 684,09 - 189 \\
 &= 350 \text{ set}
 \end{aligned}$$

**Februari**

$$\begin{aligned}
 \text{Persediaan} &= \text{Persediaan Januari} + \text{Unit Produces} - \text{Demand} \\
 &= 350 + 590,80 - 752 \\
 &= 188,80 \text{ set}
 \end{aligned}$$

**Maret**

$$\begin{aligned}
 \text{Persediaan} &= \text{Persediaan Februari} + \text{Unit Produces} - \text{Demand} \\
 &= 188,80 + 559,71 - 748 \\
 &= 0,51 \text{ set}
 \end{aligned}$$

**April**

$$\begin{aligned}
 \text{Persediaan} &= \text{Persediaan Maret} + \text{Unit Produces} - \text{Demand} \\
 &= 0,51 + 497,52 - 449 \\
 &= 49,03 \text{ set}
 \end{aligned}$$

**Mei**

$$\begin{aligned}
 \text{Persediaan} &= \text{Persediaan April} + \text{Unit Produces} - \text{Demand} \\
 &= 49,03 + 554,33 - 350 \\
 &= 253,35 \text{ set}
 \end{aligned}$$



**Juni**

$$\begin{aligned}
 \text{Persediaan} &= \text{Persediaan Mei} + \text{Unit Produces} - \text{Demand} \\
 &= 253,35 + 554,33 - 665 \\
 &= 142,68 \text{ set}
 \end{aligned}$$

**Juli**

$$\begin{aligned}
 \text{Persediaan} &= \text{Persediaan Juni} + \text{Unit Produces} - \text{Demand} \\
 &= 142,68 + 708,30 - 833 \\
 &= 17,98 \text{ set}
 \end{aligned}$$

**Agustus**

$$\begin{aligned}
 \text{Persediaan} &= \text{Persediaan Juli} + \text{Overtime} + \text{Unit Produces} - \text{Demand} \\
 &= 17,98 + 50,04 + 677,51 - 742 \\
 &= 3,53 \text{ set}
 \end{aligned}$$

**September**

$$\begin{aligned}
 \text{Persediaan} &= \text{Persediaan Agustus} + \text{Unit Produces} - \text{Demand} \\
 &= 3,53 + 615,92 - 603 \\
 &= 16,45 \text{ set}
 \end{aligned}$$

**Oktober**

$$\begin{aligned}
 \text{Persediaan} &= \text{Persediaan September} + \text{Unit Produces} - \text{Demand} \\
 &= 16,45 + 708,30 - 620 \\
 &= 104,76 \text{ set}
 \end{aligned}$$

**2) Cost :****a) Hiring Cost**

Total hiring cost dalam 1 tahun yakni Rp -.

**b) Firing Cost****Mei**

$$\text{Jumlah tenaga kerja awal} = 208 \text{ orang}$$

$$\text{Jumlah TK yang dibutuhkan} = 206 \text{ orang}$$

$$\text{iring} = 2 \text{ orang}$$

$$\text{iring Cost} = 2 \times \text{Rp. } 5.796.156$$

$$= \text{Rp. } 11.592.312.$$



c) *Labour Cost***November 2023 s/d Oktober 2024**

Upah tenaga kerja = Rp. 5.796.156 /Bulan

*Total Worker Used* = 2484 orang

Biaya tenaga kerja = Rp. 5.796.156 x 2484

= Rp. 14.397.651.504

d) *Holding Cost***Desember**

Persediaan = 3,57

Biaya simpan = Rp. 148.571/set

*Holding Cost* = 3,57 x 148.571

= Rp. 530.489

**Januari**

Persediaan = 350

Biaya simpan = Rp. 148.571/set

*Holding Cost* = 350 x 148.571

= Rp. 51.999.940

**Februari**

Persediaan = 188,80

Biaya simpan = Rp. 148.571/set

*Holding Cost* = 188,80 x 148.571

= Rp. 28.050.585

**Maret**

Persediaan = 0,51

Biaya simpan = Rp. 148.571/set

*Holding Cost* = 0,51 x 148.571

= Rp. 75.723

**pril**

ersediaan = 49,03

iaya simpan = Rp. 148.571/set



$$\begin{aligned}\text{Holding Cost} &= 49,03 \times 148.571 \\ &= \text{Rp.} 7.284.006\end{aligned}$$

**Mei**

$$\begin{aligned}\text{Persediaan} &= 253,35 \\ \text{Biaya simpan} &= \text{Rp.} 148.571/\text{set} \\ \text{Holding Cost} &= 253,35 \times 148.571 \\ &= \text{Rp.} 37.640.822\end{aligned}$$

**Juni**

$$\begin{aligned}\text{Persediaan} &= 142,68 \\ \text{Biaya simpan} &= \text{Rp.} 148.571/\text{set} \\ \text{Holding Cost} &= 142,68 \times 148.571 \\ &= \text{Rp.} 21.197.774\end{aligned}$$

**Juli**

$$\begin{aligned}\text{Persediaan} &= 17,98 \\ \text{Biaya simpan} &= \text{Rp.} 148.571/\text{set} \\ \text{Holding Cost} &= 17,98 \times 148.571 \\ &= \text{Rp.} 2.671.648\end{aligned}$$

**Agustus**

$$\begin{aligned}\text{Persediaan} &= 3,53 \\ \text{Biaya simpan} &= \text{Rp.} 148.571/\text{set} \\ \text{Holding Cost} &= 3,53 \times 148.571 \\ &= \text{Rp.} 525.091\end{aligned}$$

**September**

$$\begin{aligned}\text{Persediaan} &= 16,45 \\ \text{Biaya simpan} &= \text{Rp.} 148.571/\text{set} \\ \text{Holding Cost} &= 16,45 \times 148.571 \\ &= \text{Rp.} 2.444.185\end{aligned}$$

**Oktober**

$$\begin{aligned}\text{Persediaan} &= 104,76 \\ \text{Biaya simpan} &= \text{Rp.} 148.571/\text{set} \\ \text{Holding Cost} &= 104,76 \times 148.571 \\ &= \text{Rp.} 15.563.683\end{aligned}$$



Dimana total *holding cost* dalam 1 tahun yakni Rp. 168.159.454.

e) *Overtime Cost*

**Desember**

*Overtime Cost/Hour* = Rp. 67.008  
*Overtime* = 39 hour  
*Worker Used* = 208  
*Overtime Cost* =  $208 \times 39 \times 67.008$   
 = Rp. 543.565.520.

**Agustus**

*Overtime Cost/Hour* = Rp. 67.008  
*Overtime* = 13 hour  
*Worker Used* = 206  
*Overtime Cost* =  $206 \times 13 \times 67.008$   
 = Rp. 179.446.309.

f) *Material Cost*

**Desember**

*Unit Producess* = 590,80 set  
*Material Cost/Set* = Rp. 4.051.429  
*Material Cost* = *Unit Producess* × *Material Cost*  
 =  $590,80 \times \text{Rp. } 4.051.429$   
 = Rp. 3.007.737.522.

**Januari**

*Unit Producess* = 535,43 set  
*Material Cost/Set* = Rp. 4.051.429  
*Material Cost* = *Unit Producess* × *Material Cost*  
 =  $535,43 \times \text{Rp. } 4.051.429$   
 = Rp. 2.169.256.629.

**Februari**

*Unit Producess* = 590,80 set  
*Material Cost/Set* = Rp. 4.051.429  
*Material Cost* = *Unit Producess* × *Material Cost*  
 =  $590,80 \times \text{Rp. } 4.051.429$



= Rp. 2.393.592.164.

### **Maret**

*Unit Producess* = 559,71 set

*Material Cost/Set* = Rp. 4.051.429

*Material Cost* = *Unit Producess* × *Material Cost*

= 559,71 × Rp. 4.051.429

= Rp. 2.267.613.629.

### **April**

*Unit Producess* = 497,52 set

*Material Cost/Set* = Rp. 4.051.429

*Material Cost* = *Unit Producess* × *Material Cost*

= 497,52 × Rp. 4.051.429

= Rp. 2.015.656.559.

### **Mei**

*Unit Producess* = 554,33 set

*Material Cost/Set* = Rp. 4.051.429

*Material Cost* = *Unit Producess* × *Material Cost*

= 554,33 × Rp. 4.051.429

= Rp. 2.245.809.652.

### **Juni**

*Unit Producess* = 554,33 set

*Material Cost/Set* = Rp. 4.051.429

*Material Cost* = *Unit Producess* × *Material Cost*

= 554,33 × Rp. 4.051.429

= Rp. 2.245.809.652.

### **Juli**

*Unit Producess* = 708,30 set

*Material Cost/Set* = Rp. 4.051.429

*Material Cost* = *Unit Producess* × *Material Cost*

= 708,30 × Rp. 4.051.429

= Rp. 2.869.645.666.



**gustus**

$$\begin{aligned}
 \text{Unit Producess} &= 677,51 \text{ set} \\
 \text{Material Cost/Set} &= \text{Rp. } 4.051.429 \\
 \text{Material Cost} &= \text{Unit Producess} \times \text{Material Cost} \\
 &= 677,51 \times \text{Rp. } 4.051.429 \\
 &= \text{Rp. } 2.947.625.168.
 \end{aligned}$$

### September

$$\begin{aligned}
 \text{Unit Producess} &= 615,92 \text{ set} \\
 \text{Material Cost/Set} &= \text{Rp. } 4.051.429 \\
 \text{Material Cost} &= \text{Unit Producess} \times \text{Material Cost} \\
 &= 615,92 \times \text{Rp. } 4.051.429 \\
 &= \text{Rp. } 2.495.344.058.
 \end{aligned}$$

### Oktober

$$\begin{aligned}
 \text{Unit Producess} &= 708,30 \text{ set} \\
 \text{Material Cost/Set} &= \text{Rp. } 4.051.429 \\
 \text{Material Cost} &= \text{Unit Producess} \times \text{Material Cost} \\
 &= 708,30 \times \text{Rp. } 4.051.429 \\
 &= \text{Rp. } 2.869.645.666.
 \end{aligned}$$

Dimana total *material cost* dalam 1 tahun yakni Rp. 30.425.242.669.

### g) Total Cost

$$\begin{aligned}
 \text{Total Cost} &= \text{Hiring Cost} + \text{Firing Cost} + \text{Labour Cost} + \text{Holding Cost} \\
 &\quad \text{Material Cost} + \text{Overtime Cost} \\
 &= 0 + 191.273.148 + 14.397.651.504 + 168.159.454 + \\
 &\quad 30.425.242.669 + 834.512.449 \\
 &= \text{Rp. } 46.016.839.223.
 \end{aligned}$$



## Lampiran 6

Lampiran 6 berisi pengolahan data excel pemrograman linear

