BAB 6

KESIMPULAN DAN SARAN

6.1. Kesimpulan

Dari hasil penelitian yang dilakukan di PT Tirta Investama untuk sistem persediaan bahan baku botol kosong pada *Line* 5 *Gallon*, maka dapat ditarik kesimpulan bahwa jumlah pemesanan botol baru ke *supplier* untuk bulan Januari-Juli adalah 55.000 botol/bulan, dan untuk bulan Agustus-Desember adalah 60.000 botol/bulan. Sehingga dapat menghemat biaya persediaan sebesar Rp. 3.307.930,00/tahun.

6.2. Saran

Untuk PT Tirta Investama, disarankan untuk melakukan pendekatan simulasi dalam menentukan jumlah pembelian botol baru dari *supplier* untuk setiap bulannya, agar biaya persediaan lebih murah. Sedangkan untuk penelitian selanjutnya, dapat dilakukan penelitian hubungan antara pabrik dengan pihak *supplier* sehingga terdapat kepastian pemenuhan permintaan dari pabrik, agar persediaan dapat lebih dikendalikan.

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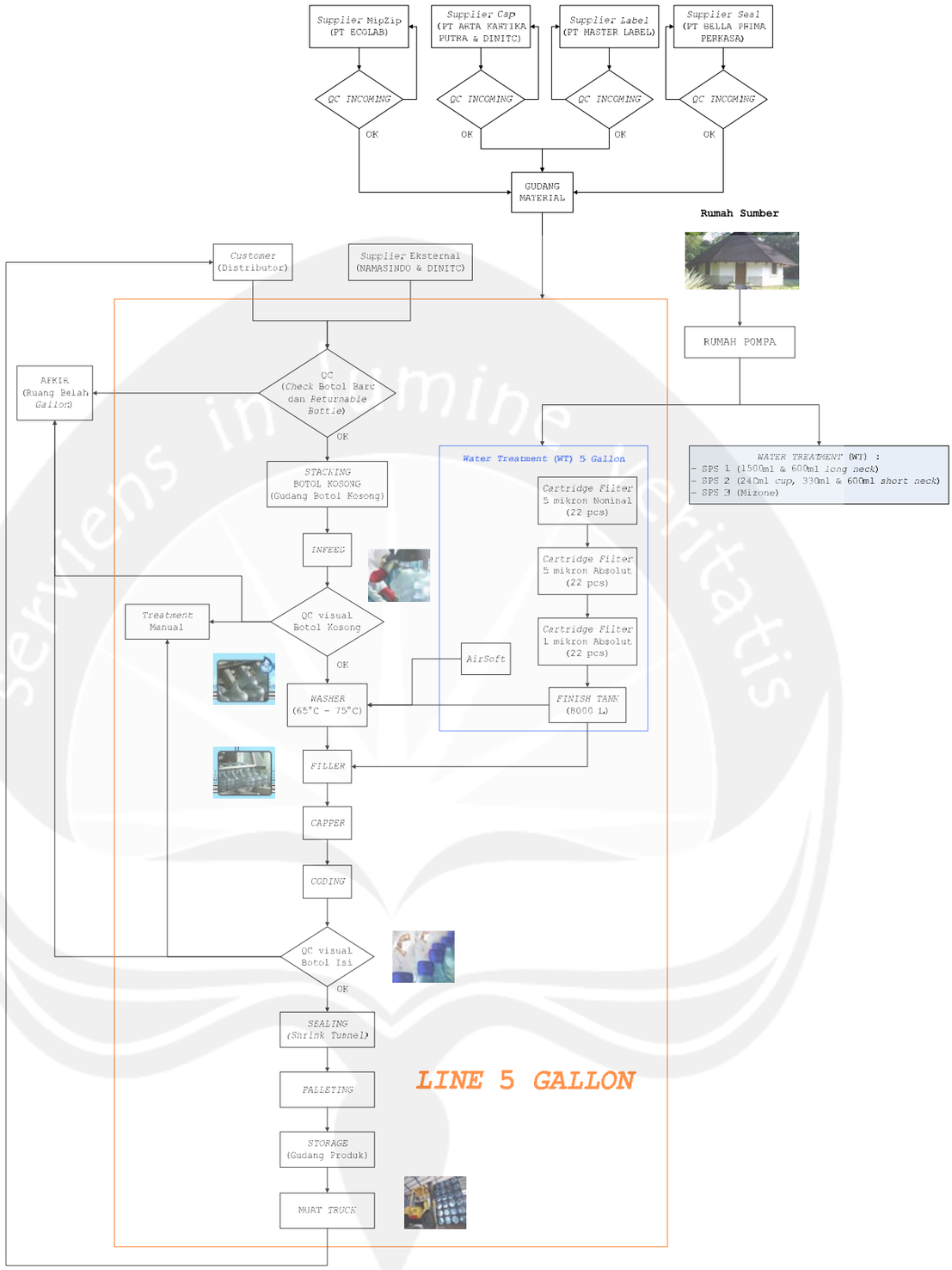
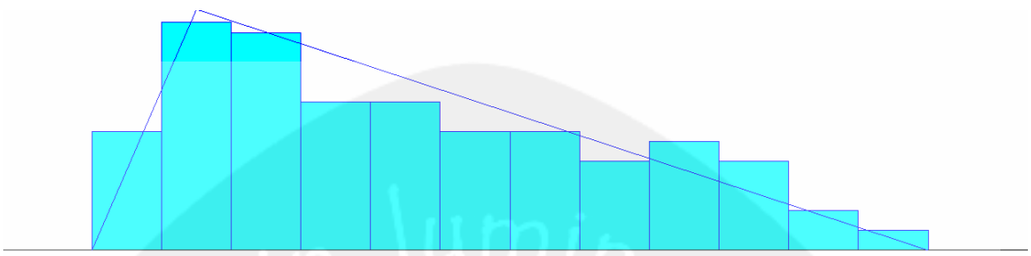
Lampiran 1: *Flowchart* Proses Produksi *Line* 5 *Gallon*



Lampiran 2: Distribusi jumlah kedatangan botol dari *customer* hari Senin-Jumat pada bulan Januari-Juli

HASIL UJI DISTRIBUSI



Distribution Summary

Distribution: Triangular
Expression: TRIA(2.2e+004, 2.36e+004, 3.53e+004)
Square Error: 0.003539

Chi Square Test
Number of intervals = 8
Degrees of freedom = 6
Test Statistic = 8.77
Corresponding p-value = 0.2

Kolmogorov-Smirnov Test
Test Statistic = 0.0603
Corresponding p-value > 0.15

Data Summary

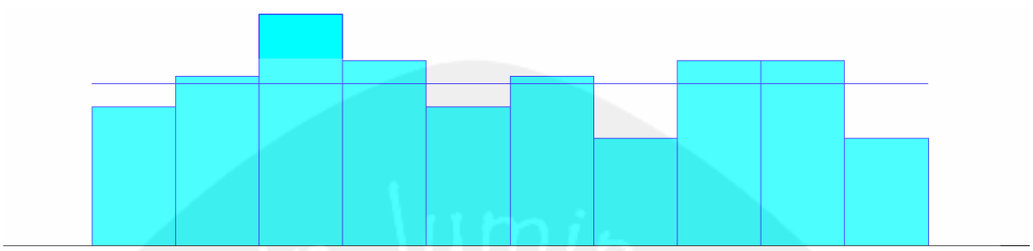
Number of Data Points = 146
Min Data Value = 2.2e+004
Max Data Value = 3.53e+004
Sample Mean = 2.71e+004
Sample Std Dev = 3.3e+003

Histogram Summary

Histogram Range = 2.2e+004 to 3.53e+004
Number of Intervals = 12

Lampiran 3: Distribusi jumlah kedatangan botol dari *customer* hari Senin-Jumat pada bulan Agustus-Desember

HASIL UJI DISTRIBUSI



Distribution Summary

Distribution: Uniform
Expression: UNIF(3.02e+004, 4.77e+004)
Square Error: 0.005125

Chi Square Test
Number of intervals = 10
Degrees of freedom = 9
Test Statistic = 5.38
Corresponding p-value > 0.75

Kolmogorov-Smirnov Test
Test Statistic = 0.0618
Corresponding p-value > 0.15

Data Summary

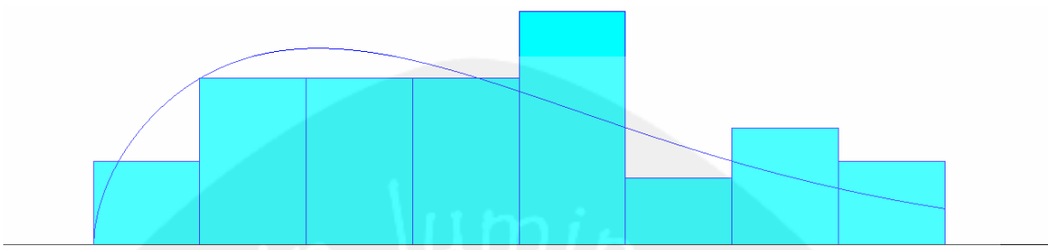
Number of Data Points = 105
Min Data Value = 3.02e+004
Max Data Value = 4.77e+004
Sample Mean = 3.86e+004
Sample Std Dev = 4.91e+003

Histogram Summary

Histogram Range = 3.02e+004 to 4.77e+004
Number of Intervals = 10

Lampiran 4: Distribusi jumlah kedatangan botol dari *customer* pada hari Sabtu, Minggu, dan hari libur

HASIL UJI DISTRIBUSI



Distribution Summary

Distribution: Weibull
Expression: 1.18e+004 + WEIB(9.11e+003, 1.55)
Square Error: 0.013914

Chi Square Test
Number of intervals = 6
Degrees of freedom = 3
Test Statistic = 5.84
Corresponding p-value = 0.128

Kolmogorov-Smirnov Test
Test Statistic = 0.148
Corresponding p-value = 0.105

Data Summary

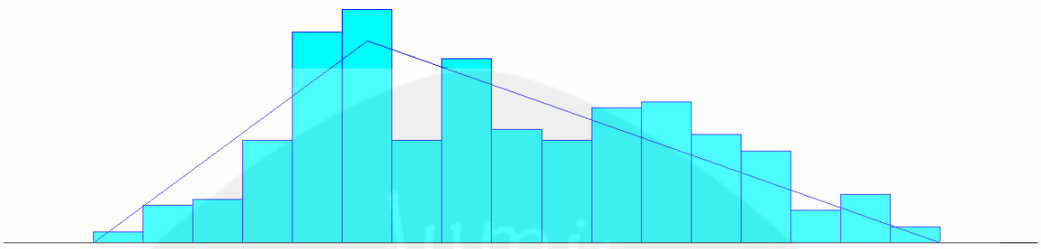
Number of Data Points = 65
Min Data Value = 1.19e+004
Max Data Value = 2.95e+004
Sample Mean = 2.03e+004
Sample Std Dev = 4.46e+003

Histogram Summary

Histogram Range = 1.18e+004 to 2.95e+004
Number of Intervals = 8

Lampiran 5: Distribusi jumlah botol yang diafkir

HASIL UJI DISTRIBUSI



Distribution Summary

```
Distribution:  Triangular
Expression:    TRIA(576, 1.24e+003, 2.63e+003)
Square Error:  0.007063

Chi Square Test
  Number of intervals    = 14
  Degrees of freedom     = 12
  Test Statistic         = 31
  Corresponding p-value  < 0.005

Kolmogorov-Smirnov Test
  Test Statistic         = 0.0964
  Corresponding p-value  < 0.01
```

Data Summary

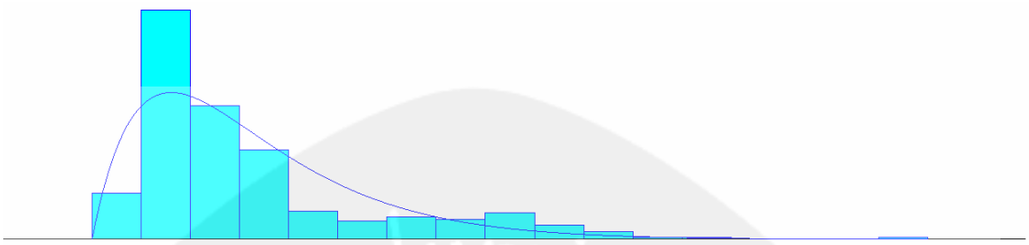
```
Number of Data Points    = 317
Min Data Value           = 576
Max Data Value           = 2.63e+003
Sample Mean              = 1.56e+003
Sample Std Dev           = 442
```

Histogram Summary

```
Histogram Range          = 576 to 2.63e+003
Number of Intervals      = 17
```

Lampiran 6: Distribusi jumlah botol yang di-*treatment*

HASIL UJI DISTRIBUSI



Distribution Summary

Distribution: Erlang
Expression: 664 + ERLA(845, 2)
Square Error: 0.027564

Chi Square Test
Number of intervals = 8
Degrees of freedom = 5
Test Statistic = 69.6
Corresponding p-value < 0.005

Kolmogorov-Smirnov Test
Test Statistic = 0.105
Corresponding p-value < 0.01

Data Summary

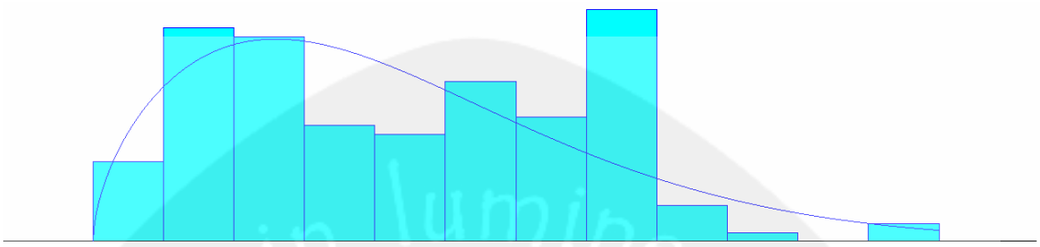
Number of Data Points = 317
Min Data Value = 664
Max Data Value = 9.59e+003
Sample Mean = 2.35e+003
Sample Std Dev = 1.36e+003

Histogram Summary

Histogram Range = 664 to 9.59e+003
Number of Intervals = 17

Lampiran 7: Distribusi produksi harian pada bulan Januari-Juli

HASIL UJI DISTRIBUSI



Distribution Summary

Distribution: Weibull
Expression: 2.05e+004 + WEIB(6.48e+003, 1.58)
Square Error: 0.022524

Chi Square Test
Number of intervals = 8
Degrees of freedom = 5
Test Statistic = 30.2
Corresponding p-value < 0.005

Kolmogorov-Smirnov Test
Test Statistic = 0.117
Corresponding p-value = 0.0347

Data Summary

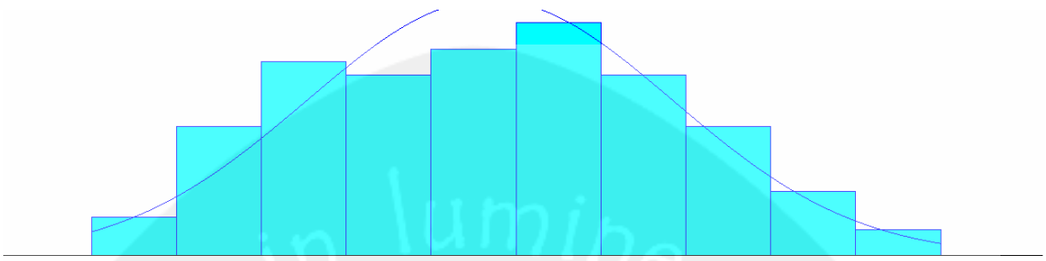
Number of Data Points = 146
Min Data Value = 2.05e+004
Max Data Value = 3.65e+004
Sample Mean = 2.65e+004
Sample Std Dev = 3.42e+003

Histogram Summary

Histogram Range = 2.05e+004 to 3.65e+004
Number of Intervals = 12

Lampiran 8: Distribusi produksi harian pada bulan Agustus-Desember

HASIL UJI DISTRIBUSI



Distribution Summary

Distribution: Normal
Expression: NORM(3.91e+004, 4.18e+003)
Square Error: 0.003929

Chi Square Test
Number of intervals = 6
Degrees of freedom = 3
Test Statistic = 3.9
Corresponding p-value = 0.28

Kolmogorov-Smirnov Test
Test Statistic = 0.0831
Corresponding p-value > 0.15

Data Summary

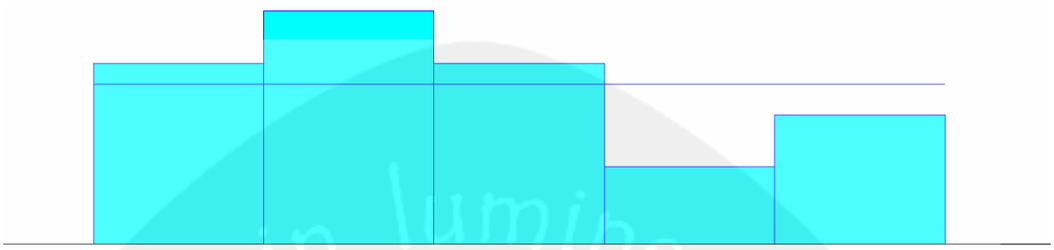
Number of Data Points = 107
Min Data Value = 3e+004
Max Data Value = 4.94e+004
Sample Mean = 3.91e+004
Sample Std Dev = 4.2e+003

Histogram Summary

Histogram Range = 3e+004 to 4.94e+004
Number of Intervals = 10

Lampiran 9: Distribusi produksi mingguan pada bulan Januari-Juli

HASIL UJI DISTRIBUSI



Distribution Summary

Distribution: Uniform
Expression: UNIF(1.29e+005, 1.89e+005)
Square Error: 0.021644

Chi Square Test
Number of intervals = 5
Degrees of freedom = 4
Test Statistic = 3.35
Corresponding p-value = 0.5

Kolmogorov-Smirnov Test
Test Statistic = 0.19
Corresponding p-value > 0.15

Data Summary

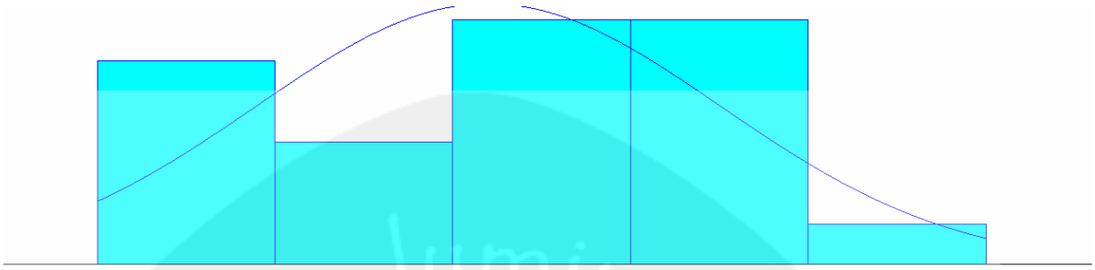
Number of Data Points = 31
Min Data Value = 1.29e+005
Max Data Value = 1.89e+005
Sample Mean = 1.56e+005
Sample Std Dev = 1.63e+004

Histogram Summary

Histogram Range = 1.29e+005 to 1.89e+005
Number of Intervals = 5

Lampiran 10: Distribusi produksi mingguan pada bulan Agustus-Desember

HASIL UJI DISTRIBUSI



Distribution Summary

Distribution: Normal
Expression: NORM(2.43e+005, 2.42e+004)
Square Error: 0.035130

Chi Square Test
Number of intervals = 3
Degrees of freedom = 0
Test Statistic = 0.532
Corresponding p-value < 0.005

Kolmogorov-Smirnov Test
Test Statistic = 0.145
Corresponding p-value > 0.15

Data Summary

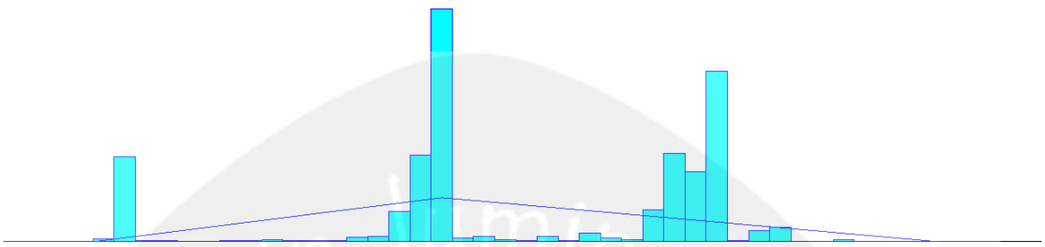
Number of Data Points = 21
Min Data Value = 2.02e+005
Max Data Value = 2.95e+005
Sample Mean = 2.43e+005
Sample Std Dev = 2.48e+004

Histogram Summary

Histogram Range = 2.02e+005 to 2.95e+005
Number of Intervals = 5

Lampiran 11: Distribusi jumlah muat botol dalam satu *truck* dari *customer*

HASIL UJI DISTRIBUSI



Distribution Summary

Distribution: Triangular
Expression: TRIA(300, 669, 1.2e+003)
Square Error: 0.114197

Chi Square Test
Number of intervals = 39
Degrees of freedom = 37
Test Statistic = 3.67e+004
Corresponding p-value < 0.005

Kolmogorov-Smirnov Test
Test Statistic = 0.246
Corresponding p-value < 0.01

Data Summary

Number of Data Points = 7220
Min Data Value = 300
Max Data Value = 1.2e+003
Sample Mean = 757
Sample Std Dev = 198

Histogram Summary

Histogram Range = 300 to 1.2e+003
Number of Intervals = 40

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Fax. (0272) 57435

Kode Surat : 152/HR/KLT.2/IV/2008

KETERANGAN PKL

Management PT.Tirta Investama menerangkan bahwa mahasiswa fakultas Teknologi Industri Universitas Atma Jaya Yogyakarta sebagai berikut :

Nama : Elizabeth Ade Tania
No.Mhs : 441/TI
Fakultas : Teknologi Industri
Jurusan : Teknik Industri

Telah melaksanakan Kerja Praktek di PT.Tirta Investama Klaten dari tanggal 7 s/d 16 April 2008.

Demikian Surat Keterangan ini dikeluarkan untuk dipergunakan sebagaimana mestinya,Terima Kasih.

Klaten, 15 April 2008

H.Nurdin Suvono
HR Manager