

LAMPIRAN 1

KUESIONER PENDAHULUAN

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Kuesioner ini didedarkan untuk mengetahui tingkat kepentingan konsumen mengenai toko bangunan. Maka dari itu, saya mohon kesediaan anda meluangkan waktu dan pikiran untuk mengisi kuesioner ini. Atas partisipasi anda, saya ucapkan terima kasih.

| No | Variabel | Sub Variabel / Atribut | Tingkat Kepentingan | |
|----|-------------------|---|---------------------|---------------|
| | | Apakah variabel dibawah ini penting dalam menentukan pilihan toko bangunan ini? | Penting | Tidak Penting |
| 1 | Product | Ketahanan barang | | |
| 2 | | Kekuatan barang | | |
| 3 | | Kelengkapan barang | | |
| 4 | | Barang dagangan mempunyai standar SNI/ISO | | |
| 5 | Price | Harga terjangkau bagi pembeli | | |
| 6 | | Program potongan harga | | |
| 7 | | Pembayaran dengan cash | | |
| 8 | | Pembayaran dengan kredit | | |
| 9 | Place | Lokasi yang strategis | | |
| 10 | | Keleluasaan tempat parkir | | |
| 11 | | Keamanan lingkungan sekitar | | |
| 12 | Promotion | Iklan melalui media cetak | | |
| 13 | | Iklan melalui brosur | | |
| 14 | | Penerapan diskon | | |
| 15 | People | Keramahan para karyawan | | |
| 16 | | Kesopanan para karyawan | | |
| 17 | | Kecekatan para karyawan | | |
| 18 | | Ketelitian para karyawan dalam mengambil barang | | |
| 19 | Physical Evidence | Penampilan karyawan dalam berpakaian | | |
| 20 | | Lantai toko bersih | | |
| 21 | | Toko bangunan cukup luas | | |
| 22 | | Kerapihan tata letak barang | | |
| 23 | | Nama toko | | |
| 24 | Process | Waktu menunggu sampai dilayani | | |
| 25 | | Layanan antar | | |
| 26 | | Layanan pesanan | | |
| 27 | | Ketepatan kasir dalam melakukan proses pembayaran | | |

HASIL KUESIONER PENDAHULUAN

| n | Atribut yang diuji | | | | | | | | | | | | | | | | | | | | | | | | | | | R1 | R2 |
|----|--------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | | |
| 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 20 | 400 |
| 2 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 20 | 400 |
| 3 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 23 | 529 |
| 4 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 20 | 400 |
| 5 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 21 | 441 |
| 6 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 16 | 256 |
| 7 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 22 | 484 |
| 8 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 19 | 361 |
| 9 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 14 | 196 |
| 10 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 20 | 400 |
| 11 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 23 | 529 |
| 12 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 20 | 400 |
| 13 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 21 | 441 |
| 14 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 20 | 400 |
| 15 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 18 | 324 |
| 16 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 23 | 529 |
| 17 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 17 | 289 |
| 18 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 20 | 400 |
| 19 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 20 | 400 |
| 20 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 18 | 324 |
| 21 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 19 | 361 |
| 22 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 18 | 324 |
| 23 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 17 | 289 |
| 24 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 23 | 529 |
| 25 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 22 | 484 |
| 26 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 17 | 289 |
| 27 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 22 | 484 |
| 28 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 18 | 324 |
| 29 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 21 | 441 |
| 30 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 21 | 441 |
| C1 | 20 | 17 | 9 | 28 | 30 | 25 | 20 | 24 | 29 | 22 | 21 | 15 | 26 | 19 | 21 | 20 | 26 | 27 | 21 | 14 | 13 | 24 | 28 | 21 | 26 | 23 | 24 | 593 | 11869 |
| C2 | 400 | 289 | 81 | 784 | 900 | 625 | 400 | 576 | 841 | 484 | 441 | 225 | 676 | 361 | 441 | 400 | 676 | 729 | 441 | 196 | 169 | 576 | 784 | 441 | 676 | 529 | 576 | 13717 | |

Pengujian 2

a. Struktur Hipotesis :

Ho: Semua atribut yang diuji memiliki proporsi jawaban YA yang sama.

Hi : Semua atribut yang diuji memiliki proporsi jawaban YA yang berbeda.

b. Taraf nyata : $\alpha = 0.05$

c. Statistik uji : Cochran Q Test

Responden = 30

C = 26

$$\sum_i^n R_i = 584$$

$$\sum_i^n C_i = 584$$

$$\sum_i^n R_i^2 = 11500$$

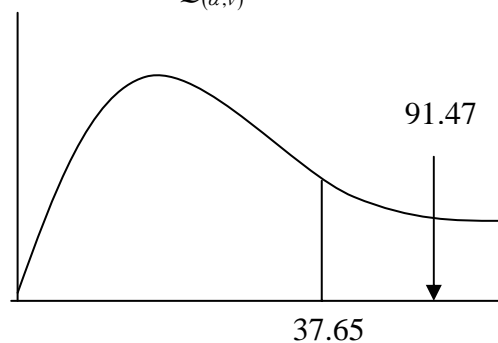
$$\sum_i^n C_i^2 = 13636$$

$$Q = \frac{\left[k(k-1) \sum_i^n C_i^2 \right] - \left[(k-1) \left(\sum_i^n C_i \right)^2 \right]}{k \sum_i^n R_i - \sum_i^n R_i^2}$$
$$= \frac{[26(26-1)13636] - [(26-1)(584)^2]}{26 * 584 - 11500} = \frac{8863400 - 8526400}{3684} = 91.47$$

d. Wilayah Kritis : $Q > Q(\alpha, v)$

$\alpha = 0.05$

$V = k - 1 = 26 - 1 = 25 \quad Q_{(\alpha, v)} = 37.65$



e. Keputusan : Tolak Ho

f. Kesimpulan : bahwa belum ada kesamaan pendapat responden tentang atribut tersebut. Dengan demikian, perlu dilakukan Pengujian 3 dengan membuang atribut yang memiliki proporsi jawaban ya paling kecil, yaitu atribut toko bangunan cukup luas (atribut no 21).

Pengujian 3

a. Struktur Hipotesis :

Ho: Semua atribut yang diuji memiliki proporsi jawaban YA yang sama.

Hi : Semua atribut yang diuji memiliki proporsi jawaban YA yang berbeda.

b. Taraf nyata : $\alpha = 0.05$

c. Statistik uji : Cochran Q Test

Responden = 30

C = 25

$$\sum_i^n R_i = 571$$

$$\sum_i^n C_i = 571$$

$$\sum_i^n R_i^2 = 10989$$

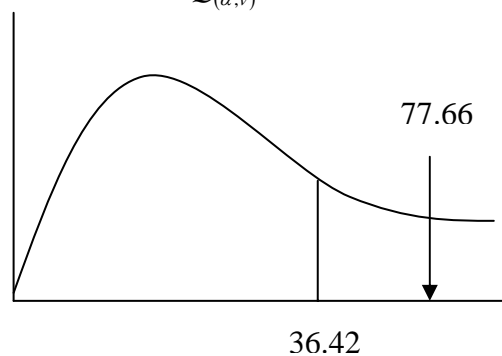
$$\sum_i^n C_i^2 = 13467$$

$$Q = \frac{\left[k(k-1) \sum_i^n C_i^2 \right] - \left[(k-1) \left(\sum_i^n C_i \right)^2 \right]}{k \sum_i^n R_i - \sum_i^n R_i^2}$$
$$= \frac{[25(25-1)13467] - [(25-1)(571)^2]}{25 * 571 - 10989} = \frac{8080200 - 7824984}{3286} = 77.66$$

d. Wilayah Kritis : $Q > Q(\alpha, v)$

$\alpha = 0.05$

$V = k - 1 = 25 - 1 = 24$ $Q_{(\alpha, v)} = 36.42$



e. Keputusan : Tolak Ho

f. Kesimpulan : bahwa belum ada kesamaan pendapat responden tentang atribut tersebut. Dengan demikian, perlu dilakukan Pengujian 4 dengan membuang atribut yang memiliki proporsi jawaban ya paling kecil, yaitu atribut lantai toko bersih (atribut no 20).

Pengujian 4

a. Struktur Hipotesis :

Ho: Semua atribut yang diuji memiliki proporsi jawaban YA yang sama.

Hi : Semua atribut yang diuji memiliki proporsi jawaban YA yang berbeda.

b. Taraf nyata : $\alpha = 0.05$

c. Statistik uji : Cochran Q Test

Responden = 30

C = 24

$$\sum_i^n R_i = 557$$

$$\sum_i^n C_i = 557$$

$$\sum_i^n R_i^2 = 10461$$

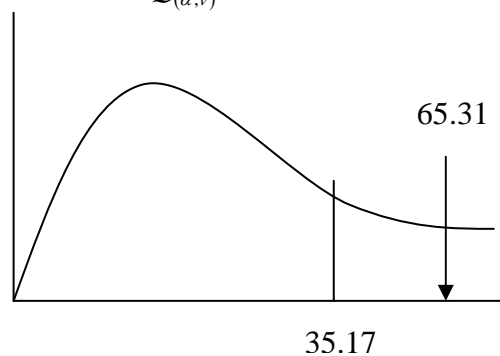
$$\sum_i^n C_i^2 = 13271$$

$$Q = \frac{\left[k(k-1) \sum_i^n C_i^2 \right] - \left[(k-1) \left(\sum_i^n C_i \right)^2 \right]}{k \sum_i^n R_i - \sum_i^n R_i^2}$$
$$= \frac{[24(24-1)13271] - [(24-1)(557)^2]}{24 * 557 - 10461} = \frac{7325592 - 7135727}{2907} = 65.31$$

d. Wilayah Kritis : $Q > Q(\alpha, v)$

$\alpha = 0.05$

$V = k - 1 = 24 - 1 = 23$ $Q_{(\alpha, v)} = 35.17$



e. Keputusan : Tolak Ho

f. Kesimpulan : bahwa belum ada kesamaan pendapat responden tentang atribut tersebut. Dengan demikian, perlu dilakukan Pengujian 5 dengan membuang atribut yang memiliki proporsi jawaban ya paling kecil, yaitu atribut iklan melalui media cetak (atribut no 12).

Pengujian 5

a. Struktur Hipotesis :

Ho: Semua atribut yang diuji memiliki proporsi jawaban YA yang sama.

Hi : Semua atribut yang diuji memiliki proporsi jawaban YA yang berbeda.

b. Taraf nyata : $\alpha = 0.05$

c. Statistik uji : Cochran Q Test

Responden = 30

C = 23

$$\sum_i^n R_i = 542$$

$$\sum_i^n C_i = 542$$

$$\sum_i^n R_i^2 = 9914$$

$$\sum_i^n C_i^2 = 13046$$

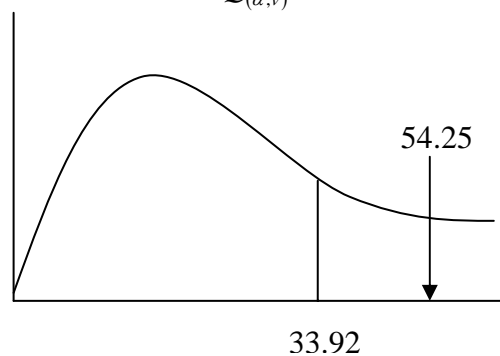
$$Q = \frac{\left[k(k-1) \sum_i^n C_i^2 \right] - \left[(k-1) \left(\sum_i^n C_i \right)^2 \right]}{k \sum_i^n R_i - \sum_i^n R_i^2}$$
$$= \frac{[23(23-1)13046] - [(23-1)(542)^2]}{23 * 542 - 9914} = \frac{6601276 - 6462808}{2552} = 54.25$$

d. Wilayah Kritis : $Q > Q(\alpha, v)$

$\alpha = 0.05$

$$V = k - 1 = 23 - 1 = 22$$

$$Q_{(\alpha, v)} = 33.92$$



e. Keputusan : Tolak Ho

f. Kesimpulan : bahwa belum ada kesamaan pendapat responden tentang atribut tersebut. Dengan demikian, perlu dilakukan Pengujian 6 dengan membuang atribut yang memiliki proporsi jawaban ya paling kecil, yaitu atribut kekuatan barang (atribut no 2).

Pengujian 6

a. Struktur Hipotesis :

Ho: Semua atribut yang diuji memiliki proporsi jawaban YA yang sama.

Hi : Semua atribut yang diuji memiliki proporsi jawaban YA yang berbeda.

b. Taraf nyata : $\alpha = 0.05$

c. Statistik uji : Cochran Q Test

Responden = 30

C = 22

$$\sum_i^n R_i = 525$$

$$\sum_i^n C_i = 525$$

$$\sum_i^n R_i^2 = 9293$$

$$\sum_i^n C_i^2 = 12757$$

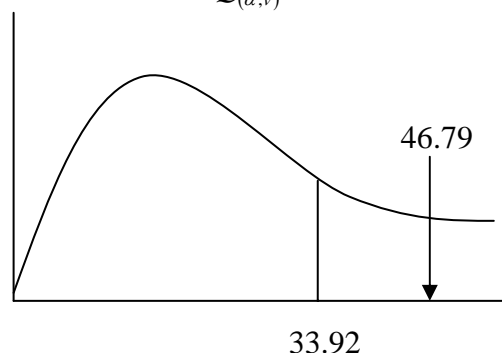
$$Q = \frac{\left[k(k-1) \sum_i^n C_i^2 \right] - \left[(k-1) \left(\sum_i^n C_i \right)^2 \right]}{k \sum_i^n R_i - \sum_i^n R_i^2}$$

$$= \frac{[22(22-1)12757] - [(22-1)(525)^2]}{22 * 525 - 9293} = \frac{5893734 - 5788125}{2257} = 46.79$$

d. Wilayah Kritis : $Q > Q(\alpha, v)$

$\alpha = 0.05$

$$V = k - 1 = 22 - 1 = 21 \quad Q_{(\alpha, v)} = 32.67$$



e. Keputusan : Tolak Ho

f. Kesimpulan : bahwa belum ada kesamaan pendapat responden tentang atribut tersebut. Dengan demikian, perlu dilakukan Pengujian 7 dengan membuang atribut yang memiliki proporsi jawaban ya paling kecil, yaitu atribut penerapan diskon (atribut no 14).

Pengujian 7

a. Struktur Hipotesis :

Ho: Semua atribut yang diuji memiliki proporsi jawaban YA yang sama.

Hi : Semua atribut yang diuji memiliki proporsi jawaban YA yang berbeda.

b. Taraf nyata : $\alpha = 0.05$

c. Statistik uji : Cochran Q Test

Responden = 30

C = 21

$$\sum_i^n R_i = 506$$

$$\sum_i^n C_i = 506$$

$$\sum_i^n R_i^2 = 8640$$

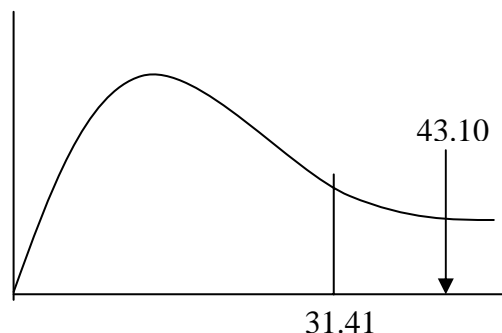
$$\sum_i^n C_i^2 = 12396$$

$$Q = \frac{\left[k(k-1) \sum_i^n C_i^2 \right] - \left[(k-1) \left(\sum_i^n C_i \right)^2 \right]}{k \sum_i^n R_i - \sum_i^n R_i^2}$$
$$= \frac{[21(21-1)12396] - [(21-1)(506)^2]}{21 * 506 - 8640} = \frac{5206320 - 5120720}{1986} = 43.10$$

d. Wilayah Kritis : $Q > Q(\alpha, v)$

$\alpha = 0.05$

$V = k - 1 = 21 - 1 = 20 \quad Q_{(\alpha, v)} = 31.41$



e. Keputusan : Tolak Ho

f. Kesimpulan : bahwa belum ada kesamaan pendapat responden tentang atribut tersebut. Dengan demikian, perlu dilakukan Pengujian 8 dengan membuang atribut yang memiliki proporsi jawaban ya paling kecil, yaitu atribut ketahanan barang (atribut no 1).

Pengujian 8

a. Struktur Hipotesis :

Ho: Semua atribut yang diuji memiliki proporsi jawaban YA yang sama.

Hi : Semua atribut yang diuji memiliki proporsi jawaban YA yang berbeda.

b. Taraf nyata : $\alpha = 0.05$

c. Statistik uji : Cochran Q Test

Responden = 30

C = 20

$$\sum_i^n R_i = 486$$

$$\sum_i^n C_i = 486$$

$$\sum_i^n R_i^2 = 7972$$

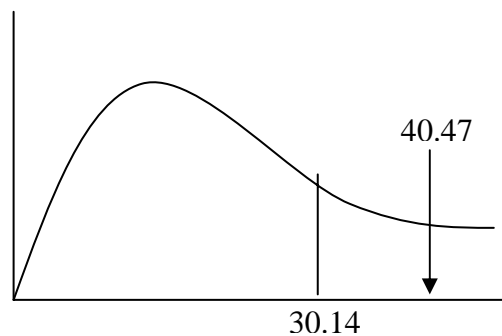
$$\sum_i^n C_i^2 = 11996$$

$$Q = \frac{\left[k(k-1) \sum_i^n C_i^2 \right] - \left[(k-1) \left(\sum_i^n C_i \right)^2 \right]}{k \sum_i^n R_i - \sum_i^n R_i^2}$$
$$= \frac{[20(20-1)11996] - [(20-1)(486)^2]}{20 * 486 - 7972} = \frac{4558480 - 4487724}{1748} = 40.47$$

d. Wilayah Kritis : $Q > Q(\alpha, v)$

$\alpha = 0.05$

$V = k - 1 = 20 - 1 = 19 \quad Q_{(\alpha, v)} = 30.14$



e. Keputusan : Tolak Ho

f. Kesimpulan : bahwa belum ada kesamaan pendapat responden tentang atribut tersebut. Dengan demikian, perlu dilakukan Pengujian 9 dengan membuang atribut yang memiliki proporsi jawaban ya paling kecil, yaitu atribut kesopanan para karyawan (atribut no 16).

Pengujian 9

a. Struktur Hipotesis :

Ho: Semua atribut yang diuji memiliki proporsi jawaban YA yang sama.

Hi : Semua atribut yang diuji memiliki proporsi jawaban YA yang berbeda.

b. Taraf nyata : $\alpha = 0.05$

c. Statistik uji : Cochran Q Test

Responden = 30

C = 19

$$\sum_i^n R_i = 466$$

$$\sum_i^n C_i = 466$$

$$\sum_i^n R_i^2 = 7322$$

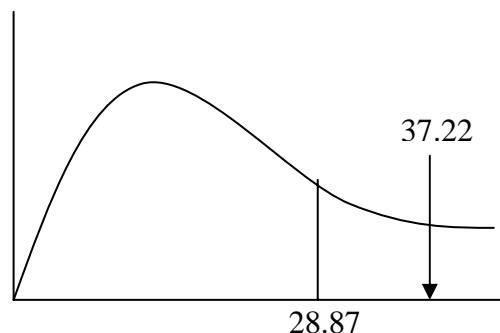
$$\sum_i^n C_i^2 = 11596$$

$$Q = \frac{\left[k(k-1) \sum_i^n C_i^2 \right] - \left[(k-1) \left(\sum_i^n C_i \right)^2 \right]}{k \sum_i^n R_i - \sum_i^n R_i^2}$$
$$= \frac{[19(19-1)11596] - [(19-1)(466)^2]}{19 * 466 - 7322} = \frac{3965832 - 3908808}{1532} = 37.22$$

d. Wilayah Kritis : $Q > Q(\alpha, v)$

$\alpha = 0.05$

$V = k - 1 = 19 - 1 = 18 \quad Q_{(\alpha, v)} = 28.87$



e. Keputusan : Tolak Ho

f. Kesimpulan : bahwa belum ada kesamaan pendapat responden tentang atribut tersebut. Dengan demikian, perlu dilakukan Pengujian 10 dengan membuang atribut yang memiliki proporsi jawaban ya paling kecil, yaitu atribut pembayaran dengan cash (atribut no 7).

Pengujian 10

a. Struktur Hipotesis :

Ho: Semua atribut yang diuji memiliki proporsi jawaban YA yang sama.

Hi : Semua atribut yang diuji memiliki proporsi jawaban YA yang berbeda.

b. Taraf nyata : $\alpha = 0.05$

c. Statistik uji : Cochran Q Test

Responden = 30

C = 18

$$\sum_i^n R_i = 446$$

$$\sum_i^n C_i = 446$$

$$\sum_i^n R_i^2 = 6708$$

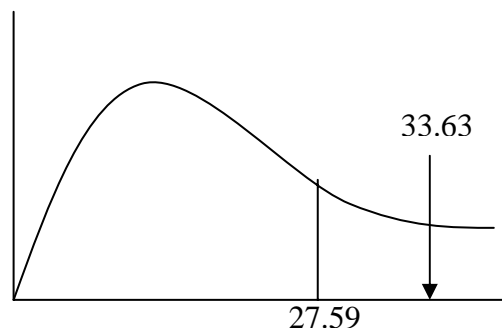
$$\sum_i^n C_i^2 = 11196$$

$$Q = \frac{\left[k(k-1) \sum_i^n C_i^2 \right] - \left[(k-1) \left(\sum_i^n C_i \right)^2 \right]}{k \sum_i^n R_i - \sum_i^n R_i^2}$$
$$= \frac{[18(18-1)11196] - [(18-1)(446)^2]}{18 * 446 - 6708} = \frac{3425976 - 3381572}{1320} = 33.63$$

d. Wilayah Kritis : $Q > Q(\alpha, v)$

$$\alpha = 0.05$$

$$V = k - 1 = 18 - 1 = 17 \quad Q_{(\alpha, v)} = 27.59$$



e. Keputusan : Tolak Ho

f. Kesimpulan : bahwa belum ada kesamaan pendapat responden tentang atribut tersebut. Dengan demikian, perlu dilakukan Pengujian 11 dengan membuang atribut yang memiliki proporsi jawaban ya paling kecil, yaitu atribut keamanan lingkungan sekitar (atribut no 11).

Pengujian 11

a. Struktur Hipotesis :

Ho: Semua atribut yang diuji memiliki proporsi jawaban YA yang sama.

Hi : Semua atribut yang diuji memiliki proporsi jawaban YA yang berbeda.

b. Taraf nyata : $\alpha = 0.05$

c. Statistik uji : Cochran Q Test

Responden = 30

C = 17

$$\sum_i^n R_i = 425$$

$$\sum_i^n C_i = 425$$

$$\sum_i^n R_i^2 = 6085$$

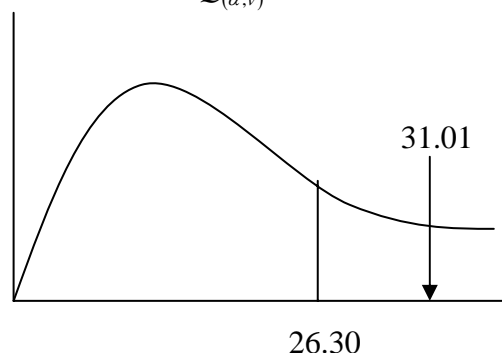
$$\sum_i^n C_i^2 = 10755$$

$$Q = \frac{\left[k(k-1) \sum_i^n C_i^2 \right] - \left[(k-1) \left(\sum_i^n C_i \right)^2 \right]}{k \sum_i^n R_i - \sum_i^n R_i^2}$$
$$= \frac{[17(17-1)10755] - [(17-1)(425)^2]}{17 * 425 - 6085} = \frac{2925360 - 2890000}{1140} = 31.01$$

d. Wilayah Kritis : $Q > Q(\alpha, v)$

$\alpha = 0.05$

$$V = k - 1 = 17 - 1 = 16 \quad Q_{(\alpha, v)} = 26.30$$



e. Keputusan : Tolak Ho

f. Kesimpulan : bahwa belum ada kesamaan pendapat responden tentang atribut tersebut. Dengan demikian, perlu dilakukan Pengujian 12 dengan membuang atribut yang memiliki proporsi jawaban ya paling kecil, yaitu atribut keramahan para karyawan sekitar (atribut no 15).

Pengujian 12

a. Struktur Hipotesis :

Ho: Semua atribut yang diuji memiliki proporsi jawaban YA yang sama.

Hi : Semua atribut yang diuji memiliki proporsi jawaban YA yang berbeda.

b. Taraf nyata : $\alpha = 0.05$

c. Statistik uji : Cochran Q Test

Responden = 30

C = 16

$$\sum_i^n R_i = 404$$

$$\sum_i^n C_i = 404$$

$$\sum_i^n R_i^2 = 5500$$

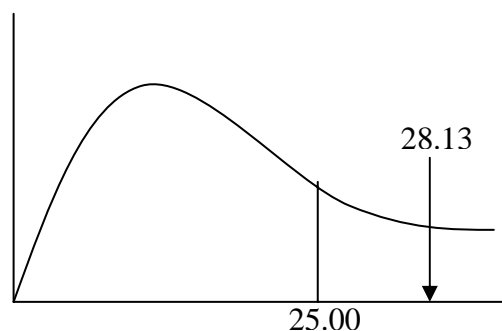
$$\sum_i^n C_i^2 = 10314$$

$$Q = \frac{\left[k(k-1) \sum_i^n C_i^2 \right] - \left[(k-1) \left(\sum_i^n C_i \right)^2 \right]}{k \sum_i^n R_i - \sum_i^n R_i^2}$$
$$= \frac{[16(16-1)10314] - [(16-1)(404)^2]}{16 * 404 - 5500} = \frac{2475360 - 2448240}{964} = 28.13$$

d. Wilayah Kritis : $Q > Q(\alpha, v)$

$\alpha = 0.05$

$V = k - 1 = 16 - 1 = 15$ $Q_{(\alpha, v)} = 25.00$



e. Keputusan : Tolak Ho

f. Kesimpulan : bahwa belum ada kesamaan pendapat responden tentang atribut tersebut. Dengan demikian, perlu dilakukan Pengujian 13 dengan membuang atribut yang memiliki proporsi jawaban ya paling kecil, yaitu atribut penampilan karyawan dalam berpakaian (atribut no 19).

Pengujian 13

a. Struktur Hipotesis :

Ho: Semua atribut yang diuji memiliki proporsi jawaban YA yang sama.

Hi : Semua atribut yang diuji memiliki proporsi jawaban YA yang berbeda.

b. Taraf nyata : $\alpha = 0.05$

c. Statistik uji : Cochran Q Test

Responden = 30

C = 15

$$\sum_i^n R_i = 383$$

$$\sum_i^n C_i = 383$$

$$\sum_i^n R_i^2 = 4951$$

$$\sum_i^n C_i^2 = 9873$$

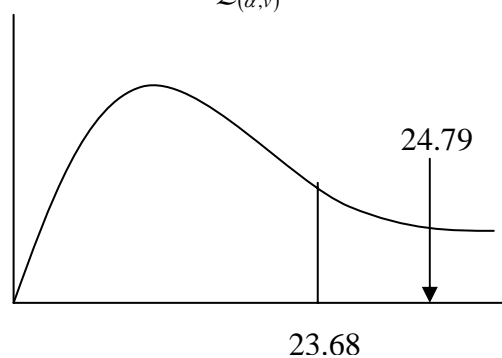
$$Q = \frac{\left[k(k-1) \sum_i^n C_i^2 \right] - \left[(k-1) \left(\sum_i^n C_i \right)^2 \right]}{k \sum_i^n R_i - \sum_i^n R_i^2}$$

$$= \frac{[15(15-1)9873] - [(15-1)(383)^2]}{15 * 383 - 4951} = \frac{2073330 - 2053646}{794} = 24.79$$

d. Wilayah Kritis : $Q > Q(\alpha, v)$

$\alpha = 0.05$

$$V = k - 1 = 15 - 1 = 14 \quad Q_{(\alpha, v)} = 23.68$$



e. Keputusan : Tolak Ho

f. Kesimpulan : bahwa belum ada kesamaan pendapat responden tentang atribut tersebut. Dengan demikian, perlu dilakukan Pengujian 14 dengan membuang atribut yang memiliki proporsi jawaban ya paling kecil, yaitu atribut waktu menunggu sampai dilayani(atribut no 24).

Pengujian 14

a. Struktur Hipotesis :

Ho: Semua atribut yang diuji memiliki proporsi jawaban YA yang sama.

Hi : Semua atribut yang diuji memiliki proporsi jawaban YA yang berbeda.

b. Taraf nyata : $\alpha = 0.05$

c. Statistik uji : Cochran Q Test

Responden = 30

C = 14

$$\sum_i^n R_i = 362$$

$$\sum_i^n C_i = 362$$

$$\sum_i^n R_i^2 = 4422$$

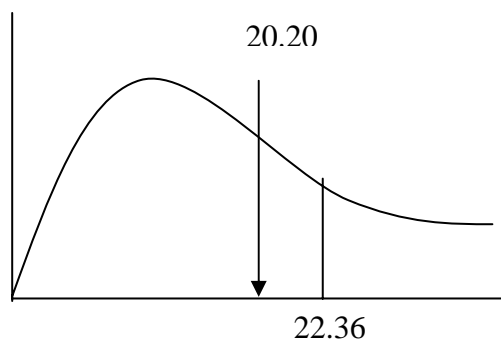
$$\sum_i^n C_i^2 = 9432$$

$$Q = \frac{\left[k(k-1) \sum_i^n C_i^2 \right] - \left[(k-1) \left(\sum_i^n C_i \right)^2 \right]}{k \sum_i^n R_i - \sum_i^n R_i^2}$$
$$= \frac{[14(14-1)9432] - [(14-1)(362)^2]}{14 * 362 - 4422} = \frac{1716624 - 1703572}{646} = 20.20$$

d. Wilayah Kritis : $Q > Q(\alpha, v)$

$\alpha = 0.05$

$V = k - 1 = 14 - 1 = 13 \quad Q_{(\alpha, v)} = 22.36$



e. Keputusan : Terima Ho

f. Kesimpulan : bahwa terdapat kesamaan pendapat responden tentang atribut tersebut.

Berdasarkan pengujian Cochran yang telah dilakukan, maka dapat ditarik kesimpulan bahwa atribut yang dianggap penting oleh responden adalah :

| Variabel | Atribut |
|-------------------|---|
| Product | Barangan dagangan mempunyai standar SNI/ISO |
| Price | Harga terjangkau bagi pembeli |
| | Program potongan harga |
| | Pembayaran dengan kredit |
| Place | Lokasi yang strategis |
| | Keleluasaan tempat parkir |
| Promotion | Iklan melalui brosur |
| People | Kecekatan para karyawan |
| | Ketelitian para karyawan dalam mengambil barang |
| Physical Evidence | Kerapihan tata letak barang |
| | Nama toko |
| Proses | Layanan antar |
| | Layanan pesanan |
| | Ketepatan kasir dalam melakukan proses pembayaran |

LAMPIRAN 2

KUESIONER PENELITIAN

KUESIONER

Responden yang terhormat,

Dalam rangka penyusunan Tugas Akhir Jurusan Teknik Industri Universitas Kristen Maranatha, kami mengharapkan bantuan dan partisipasi Anda untuk mengisi kuesioner ini. Penyebaran kuesioner ini dimaksudkan untuk mengetahui tingkat kepentingan, dan tingkat persetujuan konsumen mengenai toko yang menjual alat dan bahan bangunan. Perlu diketahui bahwa dalam menjawab kuesioner ini tidak ada jawaban benar/salah, sehingga isilah pertanyaan di bawah ini sesuai dengan pengetahuan dan pendapat Bapak/Ibu pribadi.

Atas partisipasi dan kerjasamanya, kami ucapkan terima kasih.

Hormat kami,

Erika Anggereni

Bagian I

Berilah tanda (X) pada pilihan yang telah tersedia dibawah ini

1. Berapakah usia Anda saat ini ?
 - a. < 25 tahun
 - b. 25 tahun – 30 tahun
 - c. 30 tahun – 35 tahun
 - d. > 35 tahun

2. Apa pekerjaan anda sekarang ?
 - a. Wiraswasta
 - b. Pegawai Negeri
 - c. Kontraktor
 - d. Lainnya...

3. Berapa penghasilan anda tiap bulannya?
 - a. < Rp. 1,500,000.00
 - b. Rp. 1,500,000.00 – Rp 5,000,000.00
 - c. Rp. 5,000,000.00 – Rp 10,000,000.00
 - d. > Rp. 10,000,000.00

4. Darimana anda mengetahui tentang toko bangunan ?
 - a. Teman
 - b. Media cetak
 - c. Brosur
 - d. Lainnya....

5. Dimana biasa anda membeli alat-alat dan bahan bangunan ?
 - a. Toko Panca Logam
 - b. Toko Inti Logam
 - c. Lainnya...

6. Barang apa saja yang biasa anda beli di toko bangunan ?
 - a. Alat Bangunan (paku, tang, obeng, dll)
 - b. Bahan Bangunan (semen, cat, besi, dll)

7. Dalam rangka apa anda melakukan pembelian alat dan bahan bangunan ?
 - a. Membangun
 - b. Renovasi
 - c. Mengganti yang rusak
 - d. Lainnya.....

8. Berapa kali anda membeli alat-alat dan bahan bangunan dalam satu bulan ?
 - a. < 2 kali
 - b. 2 kali – 4 kali
 - c. 4 kali – 6 kali
 - d. > 6 kali
 - e. Tidak pernah

9. Berapa biaya yang anda keluarkan untuk membeli alat dan bahan bangunan ?
- a. < Rp 50,000.00
 - b. Rp 50,000.00 – Rp 100,000.00
 - c. Rp 100,000.00 – Rp 200,000.00
 - d. > Rp 200,000.00
10. Menurut anda jam berapa toko bangunan dibuka dan ditutup ?
- a. 06.00 – 17.00 WIB
 - b. 07.00 – 17.00 WIB
 - c. 07.00 – 18.00 WIB
 - d. 08.00 – 18.00 WIB
11. Menurut anda dimana lokasi pendirian toko bangunan yang tepat ?
- a. Daerah pertokoan
 - b. Dekat perumahan
 - c. Pinggiran kota
 - d. Lainnya....
12. Apakah lokasi toko bangunan di Jalan Jendral Sudirman No. 48, terjangkau untuk anda datang ?
- a. Ya
 - b. Tidak

Bagian II

Berilah tanda checklist (✓) pada kolom bagian kanan yang telah tersedia untuk menunjukkan tingkat kepentingan anda terhadap pernyataan tersebut tentang atribut Toko Bangunan.

STP = Sangat Tidak Penting

P = Penting

TP = Tidak Penting

SP = Sangat Penting

| No | Variabel | Atribut | Tingkat Kepentingan | | | |
|----|-----------|---|---------------------|----|---|----|
| | | | STP | TP | P | SP |
| 1 | Product | Barang dagangan mempunyai standar SNI/ISO* | | | | |
| 2 | | Ketersediaan barang | | | | |
| 3 | | Keanekaragaman barang | | | | |
| 4 | | Kelengkapan jenis bahan bangunan | | | | |
| 5 | | Kualitas barang yang tinggi | | | | |
| 6 | | Merek barang yang terkenal | | | | |
| 7 | | Adanya pengantaran barang ke pemesan | | | | |
| 8 | Price | Harga terjangkau bagi pembeli | | | | |
| 9 | | Adanya pembayaran secara tunai | | | | |
| 10 | | Pembayaran dilakukan seminggu/sebulan setelah pemesanan | | | | |
| 11 | | Jika beli banyak maka ada potongan harga | | | | |
| 12 | Place | Lokasi dekat daerah pembangunan | | | | |
| 13 | | Lokasi dipusat pembelian | | | | |
| 14 | | Keleluasaan tempat parkir | | | | |
| 15 | Promotion | Iklan melalui brosur | | | | |
| 16 | | Mengadakan diskon pada periode tertentu | | | | |
| 17 | People | Kecekatan para karyawan dalam pelayanan | | | | |
| 18 | | Ketelitian para karyawan dalam mengambil barang | | | | |
| 19 | | Keramahan para karyawan | | | | |
| 20 | Physical | Kerapihan tata letak barang | | | | |
| 21 | | Nama toko terlihat dengan jelas | | | | |
| 22 | Evidence | Kenyaman toko | | | | |
| 23 | | Kebersihan toko | | | | |
| 24 | Proces | Adanya layanan pesanan lewat telepon | | | | |
| 25 | | Ketepatan kasir dalam melakukan proses pembayaran | | | | |

* SNI/ISO adalah suatu standar yang ditetapkan oleh pemerintah dan menerangkan elemen-elemen yang perlu ada dalam sistem kualitas untuk memastikan produk.

Hasil Kuesioner Penelitian

| Responden ke- | Pernyataan | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 1 | 4 | 4 | 2 | 1 | 3 | 3 | 3 | 4 | 3 | 4 | 3 | 4 | 4 | 4 | 3 | 2 | 4 | 3 | 3 | 3 | 4 | 1 | 3 | 4 | 3 |
| 2 | 3 | 2 | 4 | 3 | 4 | 3 | 4 | 3 | 3 | 3 | 2 | 2 | 3 | 4 | 3 | 3 | 4 | 4 | 3 | 1 | 4 | 4 | 4 | 3 | 1 |
| 3 | 4 | 3 | 3 | 2 | 4 | 1 | 3 | 4 | 2 | 4 | 4 | 3 | 4 | 4 | 4 | 1 | 3 | 2 | 2 | 3 | 3 | 2 | 4 | 3 | 3 |
| 4 | 4 | 4 | 3 | 1 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 4 | 3 | 3 |
| 5 | 1 | 4 | 4 | 2 | 2 | 3 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 3 | 3 | 4 | 3 | 3 | 2 | 3 | 3 | 4 | 3 | 3 |
| 6 | 2 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 4 | 3 | 3 |
| 7 | 2 | 4 | 3 | 3 | 4 | 3 | 3 | 4 | 2 | 4 | 4 | 3 | 1 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 4 | 3 |
| 8 | 2 | 2 | 2 | 3 | 2 | 1 | 1 | 3 | 1 | 3 | 4 | 3 | 2 | 1 | 2 | 4 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 3 | 3 |
| 9 | 4 | 4 | 4 | 4 | 1 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 2 | 1 | 3 | 3 | 3 | 3 | 4 | 3 | 4 | 3 | 3 |
| 10 | 1 | 3 | 4 | 3 | 2 | 4 | 4 | 4 | 2 | 3 | 3 | 3 | 1 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 4 | 1 | 2 |
| 11 | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 4 | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 2 | 3 | 2 | 3 | 4 | 4 | 4 | 3 | 3 | 3 |
| 12 | 1 | 3 | 4 | 2 | 2 | 3 | 4 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 4 | 4 | 2 | 2 | 3 | 1 | 4 | 4 | 4 |
| 13 | 3 | 4 | 1 | 3 | 4 | 3 | 3 | 4 | 3 | 4 | 2 | 3 | 4 | 2 | 4 | 4 | 3 | 3 | 3 | 3 | 4 | 3 | 4 | 4 | 1 |
| 14 | 3 | 1 | 4 | 3 | 4 | 4 | 4 | 3 | 4 | 3 | 4 | 4 | 3 | 4 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 |
| 15 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 1 | 3 | 4 | 4 | 4 | 3 | 2 | 4 | 4 | 2 |
| 16 | 3 | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 2 | 3 | 1 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 2 |
| 17 | 4 | 3 | 4 | 3 | 4 | 3 | 3 | 4 | 3 | 4 | 4 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 4 |
| 18 | 4 | 3 | 3 | 2 | 2 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 3 |
| 19 | 3 | 2 | 4 | 3 | 3 | 3 | 1 | 4 | 3 | 4 | 3 | 4 | 1 | 3 | 3 | 3 | 3 | 4 | 2 | 3 | 4 | 3 | 3 | 3 | 3 |
| 20 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 1 | 4 |
| 21 | 3 | 4 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 4 | 3 | 3 | 1 | 3 | 2 | 1 | 3 | 4 | 4 | 4 | 3 | 4 | 3 | 4 | 4 |
| 22 | 3 | 3 | 4 | 1 | 3 | 4 | 4 | 3 | 3 | 3 | 4 | 3 | 2 | 4 | 3 | 2 | 4 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 3 |
| 23 | 4 | 4 | 2 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 2 |
| 24 | 3 | 3 | 4 | 1 | 3 | 3 | 3 | 4 | 3 | 1 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 4 | 3 |
| 25 | 3 | 3 | 2 | 2 | 4 | 4 | 3 | 2 | 2 | 3 | 3 | 4 | 2 | 1 | 4 | 3 | 4 | 2 | 3 | 2 | 4 | 2 | 3 | 3 | 3 |
| 26 | 2 | 4 | 3 | 2 | 3 | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 2 | 3 | 3 | 3 | 3 |
| 27 | 3 | 3 | 4 | 1 | 3 | 1 | 2 | 3 | 4 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 2 | 4 | 1 | 1 | 2 | 3 | 1 | 4 | 4 |
| 28 | 3 | 4 | 1 | 2 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 3 |
| 29 | 4 | 3 | 4 | 2 | 3 | 2 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 4 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 4 | 4 | 3 | 3 |
| 30 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 1 | 4 | 2 | 2 | 4 | 4 | 4 | 4 | 3 | 4 | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 31 | 4 | 3 | 3 | 3 | 1 | 2 | 3 | 4 | 3 | 4 | 4 | 3 | 4 | 4 | 2 | 2 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 4 |
| 32 | 3 | 3 | 1 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 4 | 4 | 3 | 3 | 1 | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 4 | 3 |
| 33 | 4 | 2 | 3 | 1 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 4 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 3 |
| 34 | 1 | 3 | 3 | 1 | 3 | 3 | 4 | 3 | 1 | 2 | 4 | 3 | 1 | 3 | 4 | 3 | 3 | 1 | 2 | 1 | 3 | 3 | 3 | 4 | 4 |
| 35 | 3 | 3 | 3 | 4 | 3 | 4 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 4 | 3 | 4 | 4 | 3 | 4 | 3 | |
| 36 | 3 | 4 | 4 | 1 | 3 | 3 | 4 | 4 | 4 | 3 | 4 | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 3 | 2 |
| 37 | 3 | 3 | 3 | 2 | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 2 | 3 | 4 | 3 | 3 | 4 |
| 38 | 3 | 4 | 3 | 2 | 2 | 3 | 3 | 1 | 3 | 3 | 3 | 4 | 3 | 2 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 39 | 4 | 3 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 1 | 4 | 2 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 |
| 40 | 2 | 3 | 1 | 2 | 2 | 3 | 1 | 3 | 1 | 4 | 2 | 3 | 4 | 1 | 3 | 3 | 1 | 4 | 3 | 3 | 3 | 1 | 1 | 4 | 3 |
| 41 | 3 | 4 | 3 | 3 | 3 | 4 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 |
| 42 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 2 | 4 | 4 | 4 | 3 | 4 | 2 | 3 | 3 | 2 | 2 | 4 | 2 | 3 |
| 43 | 4 | 4 | 3 | 3 | 3 | 4 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 2 | 4 | 3 | 4 | 4 | 1 | 4 | 3 | 3 | 3 | 1 |
| 44 | 3 | 4 | 2 | 4 | 4 | 3 | 2 | 3 | 4 | 3 | 3 | 4 | 4 | 2 | 4 | 4 | 2 | 3 | 4 | 4 | 4 | 3 | 2 | 3 | 3 |
| 45 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 2 | 4 | 3 | 4 | 3 | 4 | 4 | 3 | 3 | 3 | 4 | 3 | 2 | 4 | 4 | 3 |
| 46 | 3 | 4 | 3 | 2 | 2 | 4 | 4 | 4 | 2 | 4 | 3 | 3 | 3 | 2 | 3 | 3 | 4 | 4 | 4 | 3 | 2 | 3 | 4 | 3 | 4 |
| 47 | 2 | 3 | 1 | 1 | 2 | 4 | 1 | 3 | 1 | 3 | 2 | 3 | 3 | 1 | 2 | 2 | 1 | 4 | 4 | 3 | 2 | 4 | 1 | 1 | 3 |
| 48 | 4 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 4 | 3 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 4 |
| 49 | 1 | 4 | 3 | 2 | 2 | 4 | 2 | 3 | 4 | 2 | 3 | 3 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 2 | 3 | 4 | 3 | 4 |
| 50 | 4 | 3 | 3 | 4 | 4 | 2 | 3 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 2 | 4 | 3 | 3 | 2 | 2 |
| 51 | 4 | 4 | 4 | 4 | 3 | 2 | 4 | 1 | 2 | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 4 | 2 | 2 | 2 | 3 | 4 | 4 | 4 | 2 |
| 52 | 1 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 |
| 53 | 4 | 3 | 4 | 4 | 4 | 2 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 1 | 4 | 3 | 4 | 4 | 3 |
| 54 | 3 | 4 | 3 | 3 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 4 | 1 | 3 | 3 | 3 |
| 55 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 1 | 4 | 3 | 4 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 4 | 3 |
| 56 | 3 | 4 | 3 | 2 | 4 | 2 | 3 | 3 | 2 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 1 | 2 | 3 | 3 | 3 | 3 | 1 | 3 |
| 57 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 4 | 3 | 4 | 3 | 3 | 3 | 4 | 1 | 4 | 4 | 4 |
| 58 | 1 | 3 | 2 | 1 | 2 | 3 | 4 | 4 | 2 | 4 | 3 | 3 | 2 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 2 | 3 | 4 | 2 | 3 |
| 59 | 3 | 2 | 3 | 1 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 4 | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 3 | 3 |
| 60 | 1 | 3 | 3 | 1 | 3 | 1 | 3 | 4 | 1 | 3 | 4 | 3 | 1 | 3 | 3 | 1 | 4 | 3 | 1 | 1 | 3 | 1 | 3 | 3 | 4 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 61 | 2 | 3 | 2 | 2 | 3 | 2 | 4 | 3 | 2 | 2 | 4 | 4 | 2 | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 4 | 3 | 3 | 3 | 4 |
| 62 | 3 | 4 | 4 | 2 | 4 | 2 | 4 | 4 | 2 | 2 | 3 | 3 | 1 | 2 | 4 | 1 | 4 | 4 | 2 | 2 | 3 | 3 | 4 | 3 | 1 |
| 63 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 4 | 4 | 4 | 3 | 3 | 1 | 4 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 4 | 3 |
| 64 | 2 | 4 | 1 | 1 | 2 | 4 | 1 | 3 | 3 | 4 | 2 | 3 | 3 | 1 | 4 | 1 | 1 | 4 | 4 | 4 | 4 | 3 | 1 | 3 | 3 |
| 65 | 3 | 2 | 4 | 2 | 4 | 3 | 4 | 4 | 3 | 4 | 3 | 4 | 4 | 2 | 4 | 3 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 3 | 2 |
| 66 | 1 | 3 | 2 | 1 | 2 | 1 | 3 | 3 | 4 | 4 | 2 | 3 | 3 | 4 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 3 | 4 | 2 |
| 67 | 2 | 2 | 3 | 2 | 4 | 2 | 3 | 4 | 4 | 3 | 1 | 4 | 4 | 4 | 4 | 2 | 3 | 2 | 2 | 2 | 4 | 2 | 3 | 3 | 2 |
| 68 | 4 | 4 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 4 | 3 | 3 | 4 | 1 | 2 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 3 |
| 69 | 3 | 3 | 4 | 4 | 4 | 1 | 4 | 4 | 3 | 2 | 4 | 4 | 4 | 2 | 4 | 1 | 4 | 2 | 4 | 1 | 4 | 3 | 3 | 1 | 3 |
| 70 | 3 | 4 | 4 | 1 | 1 | 3 | 2 | 4 | 4 | 4 | 3 | 3 | 3 | 1 | 1 | 3 | 2 | 3 | 3 | 3 | 4 | 3 | 2 | 1 | 3 |
| 71 | 3 | 2 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 2 | 3 | 4 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| 72 | 2 | 3 | 3 | 4 | 4 | 2 | 3 | 4 | 3 | 3 | 4 | 4 | 1 | 3 | 4 | 2 | 3 | 2 | 2 | 2 | 4 | 2 | 3 | 3 | 3 |
| 73 | 4 | 3 | 1 | 1 | 2 | 3 | 1 | 3 | 1 | 1 | 2 | 3 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 4 | 4 |
| 74 | 2 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 2 | 3 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 4 |
| 75 | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 1 | 4 | 1 | 3 | 2 | 3 | 4 | 3 | 4 | 3 | 4 |
| 76 | 4 | 2 | 3 | 2 | 3 | 3 | 3 | 4 | 3 | 2 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 |
| 77 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 2 | 3 | 4 | 4 | 3 | 3 | 4 | 3 | 4 | 3 | 3 |
| 78 | 2 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 4 | 3 | 4 | 1 |
| 79 | 3 | 3 | 4 | 2 | 4 | 3 | 4 | 4 | 3 | 2 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 4 | 3 | 3 |
| 80 | 1 | 3 | 3 | 1 | 2 | 3 | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 2 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 3 | 4 | 4 | 4 |
| 81 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 2 | 2 | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 4 | 4 | 3 | 4 |
| 82 | 3 | 3 | 2 | 2 | 4 | 1 | 3 | 1 | 4 | 4 | 4 | 3 | 1 | 4 | 3 | 1 | 4 | 1 | 1 | 1 | 4 | 3 | 4 | 2 | 3 |
| 83 | 4 | 3 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 3 | 2 | 4 | 3 | 2 | 2 | 3 | 2 | 3 | 4 | 3 |
| 84 | 4 | 4 | 3 | 2 | 3 | 2 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 2 | 3 | 2 | 2 | 2 | 3 | 4 | 4 | 3 | 2 |
| 85 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 4 | 2 | 3 | 3 | 4 | 4 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 |
| 86 | 1 | 1 | 2 | 1 | 2 | 4 | 2 | 3 | 4 | 3 | 2 | 3 | 1 | 4 | 2 | 4 | 3 | 3 | 4 | 4 | 3 | 2 | 2 | 3 | 3 |
| 87 | 2 | 4 | 4 | 2 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 2 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 1 | 3 |
| 88 | 4 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 2 | 3 | 1 | 1 | 3 | 3 | 3 | 4 | 3 |
| 89 | 2 | 3 | 2 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 4 | 2 | 2 | 4 | 4 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 |
| 90 | 4 | 3 | 3 | 4 | 1 | 3 | 4 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 3 | 4 | 3 | 3 | 4 | 4 | 2 | 4 | 3 | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 91 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 3 | 4 | 2 | 2 | 2 | 4 | 3 | 4 | 4 | 4 | |
| 92 | 4 | 3 | 3 | 3 | 3 | 3 | 2 | 4 | 3 | 2 | 4 | 3 | 4 | 4 | 4 | 3 | 2 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 1 | |
| 93 | 4 | 4 | 4 | 4 | 4 | 2 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 1 | 3 | |
| 94 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 4 | 2 | 3 | 3 | 4 | 1 | 3 | 3 | 2 | 2 | 4 | 3 | 3 | |
| 95 | 3 | 4 | 3 | 3 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | |
| 96 | 3 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | |
| 97 | 4 | 4 | 2 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 3 | 4 | 3 | 4 | 3 | 3 | 3 | 4 | 2 | 3 | 3 | 3 | |
| 98 | 2 | 2 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 4 | 3 | 4 | 1 | 2 | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 4 | 3 | 3 | 4 | |
| 99 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 4 | 2 | 3 | 3 | 4 | 4 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | |
| 100 | 1 | 1 | 2 | 1 | 2 | 4 | 2 | 3 | 4 | 3 | 2 | 3 | 1 | 4 | 2 | 4 | 3 | 3 | 4 | 4 | 3 | 2 | 2 | 3 | 4 | |
| 101 | 2 | 4 | 4 | 2 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 2 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | |
| 102 | 4 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 2 | 3 | 1 | 1 | 3 | 3 | 3 | 2 | 4 | |
| 103 | 2 | 3 | 2 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 4 | 2 | 2 | 4 | 4 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 4 | |
| 104 | 4 | 3 | 3 | 4 | 1 | 3 | 4 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 3 | 4 | 3 | 3 | 4 | 4 | 2 | 4 | 4 | 2 | |
| 105 | 1 | 4 | 2 | 3 | 3 | 2 | 3 | 2 | 4 | 3 | 1 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 4 | 3 | |
| 106 | 4 | 3 | 3 | 4 | 4 | 1 | 2 | 4 | 3 | 3 | 4 | 4 | 2 | 3 | 4 | 1 | 4 | 1 | 1 | 4 | 3 | 4 | 3 | 1 | 3 | |
| 107 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 4 | 3 | 3 | 1 | 3 | 3 | 2 | 1 | 3 | 3 | 3 | 4 | 4 | |
| 108 | 3 | 4 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 4 | 3 | 4 | 4 | 3 | 4 | 3 | 3 | 4 | 4 | 3 | 1 | |
| 109 | 4 | 4 | 4 | 3 | 4 | 1 | 1 | 3 | 4 | 4 | 4 | 4 | 1 | 4 | 4 | 1 | 4 | 4 | 3 | 3 | 4 | 1 | 3 | 1 | 3 | |
| 110 | 3 | 3 | 4 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 1 | 4 | |
| 111 | 3 | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 2 | 3 | 1 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 3 | 4 | |
| 112 | 4 | 3 | 4 | 3 | 4 | 3 | 3 | 4 | 3 | 4 | 4 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 2 | |
| 113 | 4 | 3 | 3 | 2 | 2 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 3 | |
| 114 | 3 | 2 | 4 | 3 | 3 | 3 | 1 | 4 | 3 | 4 | 3 | 4 | 1 | 3 | 3 | 3 | 3 | 4 | 2 | 3 | 4 | 3 | 3 | 4 | 4 | |
| 115 | 2 | 4 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 2 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 2 | 4 | 4 | 4 |
| 116 | 1 | 3 | 2 | 1 | 2 | 4 | 2 | 3 | 4 | 3 | 2 | 3 | 1 | 4 | 2 | 4 | 2 | 4 | 4 | 4 | 3 | 4 | 2 | 3 | 2 | |
| 117 | 1 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 1 | |
| 118 | 4 | 3 | 3 | 1 | 3 | 2 | 3 | 3 | 4 | 2 | 1 | 3 | 4 | 2 | 3 | 4 | 3 | 2 | 2 | 3 | 4 | 3 | 4 | 4 | 4 | |
| 119 | 2 | 2 | 2 | 3 | 2 | 4 | 1 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 4 | 3 | 2 | 3 | 3 | 3 | |
| 120 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 2 | |

RELIABILITY ANALYSIS - SCALE (ALPHA)

Item-total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item- Total Correlation | Squared Multiple Correlation | Alpha if Item Deleted |
|----------|-------------------------------------|---|--|------------------------------------|-----------------------------|
| VAR00001 | 74,5333 | 60,4863 | ,2777 | ,3574 | ,7410 |
| VAR00002 | 74,2250 | 62,3103 | ,2626 | ,2556 | ,7416 |
| VAR00003 | 74,4250 | 61,2716 | ,3110 | ,4433 | ,7386 |
| VAR00004 | 74,8000 | 58,3294 | ,3938 | ,3585 | ,7318 |
| VAR00005 | 74,3750 | 60,6733 | ,3444 | ,3959 | ,7363 |
| VAR00006 | 74,4667 | 61,4443 | ,2764 | ,5087 | ,7407 |
| VAR00007 | 74,3417 | 58,6806 | ,4782 | ,6390 | ,7270 |
| VAR00008 | 74,0167 | 62,6888 | ,2346 | ,2196 | ,7432 |
| VAR00009 | 74,4000 | 60,5109 | ,3698 | ,4324 | ,7348 |
| VAR00010 | 74,1917 | 62,3579 | ,2262 | ,2589 | ,7438 |
| VAR00011 | 74,2750 | 61,5624 | ,2877 | ,3178 | ,7400 |
| VAR00012 | 74,0167 | 63,4115 | ,2723 | ,4056 | ,7422 |
| VAR00013 | 74,4750 | 60,6380 | ,2592 | ,3706 | ,7426 |
| VAR00014 | 74,4583 | 61,9478 | ,2294 | ,4020 | ,7439 |
| VAR00015 | 74,2667 | 61,8947 | ,2897 | ,3831 | ,7400 |
| VAR00016 | 74,5667 | 60,8863 | ,2658 | ,3366 | ,7418 |
| VAR00017 | 74,2333 | 60,0123 | ,4286 | ,5826 | ,7314 |
| VAR00018 | 74,3750 | 61,3456 | ,2971 | ,4667 | ,7394 |
| VAR00019 | 74,4667 | 59,4947 | ,4139 | ,6875 | ,7314 |
| VAR00020 | 74,4833 | 59,6636 | ,3622 | ,5371 | ,7346 |
| VAR00021 | 74,0667 | 62,4997 | ,3059 | ,3971 | ,7399 |
| VAR00022 | 74,4833 | 62,0838 | ,2325 | ,2320 | ,7435 |
| VAR00023 | 74,1917 | 58,9630 | ,5319 | ,6333 | ,7254 |
| VAR00024 | 74,3750 | 66,2700 | -,0744 | ,2054 | ,7638 |
| VAR00025 | 74,4917 | 67,1260 | -,1329 | ,1979 | ,7657 |

Reliability Coefficients 25 items

Alpha = ,7482 Standardized item alpha = ,7530

LAMPIRAN 3

JUMLAH PENDUDUK KOTA PRABUMULIH

JUMLAH PENDUDUK PRABUMULIH

Tahun 2004

| No | Kecamatan | Jumlah penduduk | | Total |
|-------|----------------------|-----------------|--------|--------|
| | | Pria | Wanita | |
| 1 | Prabumulih Barat | 39272 | 45185 | 84457 |
| 2 | Prabumulih Timur | 29236 | 34812 | 64048 |
| 3 | Cabai | 8905 | 10789 | 19694 |
| 4 | Rambang Kapak Tengah | 6716 | 6019 | 12735 |
| Total | | | | 180934 |

Tahun 2005

| No | Kecamatan | Jumlah penduduk | | Total |
|-------|----------------------|-----------------|--------|--------|
| | | Pria | Wanita | |
| 1 | Prabumulih Barat | 58908 | 67778 | 126686 |
| 2 | Prabumulih Timur | 43854 | 52218 | 96072 |
| 3 | Cabai | 13358 | 16184 | 29542 |
| 4 | Rambang Kapak Tengah | 10074 | 9029 | 19103 |
| Total | | | | 271403 |

LAMPIRAN 4

TINGKAT PERHITUNGAN RATA-RATA TANGGAPAN RESPONDEN

**PERHITUNGAN RATA-RATA TANGGAPAN RESPONDEN
SETIAP ITEM PERTANYAAN**

Tabel Perhitungan Rata-rata Tanggapan

Barang dagangan mempunyai standar ISO/SNI

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 16 | 16 |
| TP | 2 | 20 | 40 |
| P | 3 | 41 | 123 |
| SP | 4 | 43 | 172 |
| | | | 351 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{351}{120} = 2.93 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan

Ketersedian barang

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 3 | 3 |
| TP | 2 | 14 | 28 |
| P | 3 | 55 | 165 |
| SP | 4 | 48 | 192 |
| | | | 388 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{388}{120} = 3.23 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan

Keanekaragaman barang

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 7 | 7 |
| TP | 2 | 18 | 36 |
| P | 3 | 59 | 177 |
| SP | 4 | 36 | 144 |
| | | | 364 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{364}{120} = 3.03 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan
Kelengkapan jenis bahan barang

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 22 | 22 |
| TP | 2 | 31 | 62 |
| P | 3 | 33 | 99 |
| SP | 4 | 34 | 136 |
| | | | 319 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{319}{120} = 2.66 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan
Kualitas barang yang tinggi

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 6 | 6 |
| TP | 2 | 21 | 42 |
| P | 3 | 50 | 150 |
| SP | 4 | 43 | 172 |
| | | | 370 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{370}{120} = 3.08 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan
Merek barang yang terkenal

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 10 | 10 |
| TP | 2 | 16 | 32 |
| P | 3 | 59 | 177 |
| SP | 4 | 35 | 140 |
| | | | 359 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{359}{120} = 2.99 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan
Adanya pengantaran barang ke pemesan

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 9 | 9 |
| TP | 2 | 14 | 28 |
| P | 3 | 51 | 153 |
| SP | 4 | 46 | 184 |
| | | | 374 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{374}{120} = 3.12 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan
Harga terjangkau bagi pembeli

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 4 | 4 |
| TP | 2 | 6 | 12 |
| P | 3 | 43 | 129 |
| SP | 4 | 67 | 268 |
| | | | 413 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{413}{120} = 3.44 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan
Adanya pembayaran secara tunai

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 7 | 7 |
| TP | 2 | 17 | 34 |
| P | 3 | 58 | 174 |
| SP | 4 | 38 | 152 |
| | | | 367 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{367}{120} = 3.06 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan
Pembayaran dilakukan seminggu/sebulan setelah pemesanan

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 4 | 4 |
| TP | 2 | 17 | 34 |
| P | 3 | 42 | 126 |
| SP | 4 | 57 | 228 |
| | | | 392 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{392}{120} = 3.27 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan
Jika beli banyak maka ada potongan harga

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 5 | 5 |
| TP | 2 | 17 | 34 |
| P | 3 | 49 | 147 |
| SP | 4 | 49 | 196 |
| | | | 382 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{382}{120} = 3.18 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan
Lokasi dekat daerah pembangunan

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 0 | 0 |
| TP | 2 | 2 | 4 |
| P | 3 | 63 | 189 |
| SP | 4 | 55 | 220 |
| | | | 413 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{413}{120} = 3.44 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan
Lokasi dipusat pembelian

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 18 | 18 |
| TP | 2 | 13 | 26 |
| P | 3 | 42 | 126 |
| SP | 4 | 47 | 188 |
| | | | 358 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{358}{120} = 2.98 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan
Keleluasaan tempat parkir

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 9 | 9 |
| TP | 2 | 21 | 42 |
| P | 3 | 51 | 153 |
| SP | 4 | 39 | 156 |
| | | | 360 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{360}{120} = 3 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan
Iklan melalui brosur

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 3 | 3 |
| TP | 2 | 17 | 34 |
| P | 3 | 54 | 162 |
| SP | 4 | 46 | 184 |
| | | | 383 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{383}{120} = 3.19 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan
 Mengadakan diskon pada periode tertentu

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 17 | 17 |
| TP | 2 | 15 | 30 |
| P | 3 | 52 | 156 |
| SP | 4 | 36 | 144 |
| | | | 347 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{347}{120} = 2.89 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan
 Kecekatan para karyawan dalam pelayanan

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 6 | 6 |
| TP | 2 | 10 | 20 |
| P | 3 | 55 | 165 |
| SP | 4 | 49 | 196 |
| | | | 387 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{387}{120} = 3.23 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan
 Ketelitian para karyawan dalam mengambil barang

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 8 | 8 |
| TP | 2 | 14 | 28 |
| P | 3 | 58 | 174 |
| SP | 4 | 40 | 160 |
| | | | 370 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{370}{120} = 3.08 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan
Keramahan para karyawan

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 9 | 9 |
| TP | 2 | 21 | 42 |
| P | 3 | 52 | 156 |
| SP | 4 | 38 | 152 |
| | | | 359 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{359}{120} = 2.99 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan
Kerapihan tata letak barang

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 14 | 14 |
| TP | 2 | 15 | 30 |
| P | 3 | 51 | 153 |
| SP | 4 | 40 | 160 |
| | | | 357 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{357}{120} = 2.98 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan

Nama toko terlihat dengan jelas

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 0 | 0 |
| TP | 2 | 10 | 20 |
| P | 3 | 53 | 159 |
| SP | 4 | 57 | 228 |
| | | | 407 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{407}{120} = 3.39 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan

Kenyaman toko

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 9 | 9 |
| TP | 2 | 19 | 38 |
| P | 3 | 58 | 174 |
| SP | 4 | 34 | 136 |
| | | | 357 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{357}{120} = 2.98 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan

Kebersihan toko

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 6 | 6 |
| TP | 2 | 7 | 14 |
| P | 3 | 56 | 168 |
| SP | 4 | 51 | 204 |
| | | | 392 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{392}{120} = 3.27 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan
Adanya layanan pesanan lewat telepon

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 13 | 13 |
| TP | 2 | 6 | 12 |
| P | 3 | 59 | 177 |
| SP | 4 | 42 | 168 |
| | | | 370 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{370}{120} = 3.08 \end{aligned}$$

Tabel Perhitungan Rata-rata Tanggapan
Ketepatan kasir dalam melakukan proses pembayaran

| Jawaban | Skor | Jumlah Jawaban | Skor |
|---------|------|----------------|------|
| STP | 1 | 10 | 10 |
| TP | 2 | 15 | 30 |
| P | 3 | 64 | 192 |
| SP | 4 | 42 | 168 |
| | | | 400 |

$$\begin{aligned} \text{Rata - rata tanggapan} &= \frac{\text{jumlah skor total}}{\text{jumlah responden}} \\ &= \frac{400}{120} = 3.39 \end{aligned}$$

LAMPIRAN 5

PERAMALAN

PERAMALAN SEMEN BATURAJA

| 12-19-2007 Month | Actual Data | Forecast by SA | Forecast by 2-MA | Forecast by 3-MA | Forecast by 2-WMA | Forecast by SES | Forecast by DES | Forecast by AES | Forecast Error | CFE | MAD | MSE | MAPE (%) |
|---------------------|----------------|-------------------|---------------------|---------------------|----------------------|--------------------|--------------------|--------------------|-------------------|------|--------|--------|----------|
| 1 | 150 | | | | | | | | | | | | |
| 2 | 120 | 150 | | | | 150 | 150 | 150 | -30 | -30 | 30 | 900 | 25 |
| 3 | 154 | 135 | 135 | | 130 | 147,9 | 148,413 | 150 | 4 | -26 | 17 | 458 | 13,7987 |
| 4 | 156 | 141,3333 | 137 | 141,3333 | 142,6667 | 148,327 | 147,7676 | 150 | 6 | -20 | 13,333 | 317,33 | 10,4812 |
| 5 | 157 | 145 | 155 | 143,3333 | 155,3333 | 148,8641 | 147,8205 | 150 | 7 | -13 | 11,75 | 250,25 | 8,9755 |
| 6 | 100 | 147,4 | 156,5 | 155,6667 | 156,6667 | 149,4336 | 148,3374 | 150 | -50 | -63 | 19,4 | 700,2 | 17,1804 |
| 7 | 145 | 139,5 | 128,5 | 137,6667 | 119 | 145,9733 | 146,0868 | 150 | -5 | -68 | 17 | 587,67 | 14,8917 |
| 8 | 120 | 140,2857 | 122,5 | 134 | 130 | 145,9051 | 144,695 | 150 | -30 | -98 | 18,857 | 632,29 | 16,3358 |
| 9 | 148 | 137,75 | 132,5 | 121,6667 | 128,3333 | 144,0918 | 142,5634 | 150 | -2 | -100 | 16,75 | 553,75 | 14,4627 |
| 10 | 123 | 138,8889 | 134 | 137,6667 | 138,6667 | 144,3654 | 141,5872 | 150 | -27 | -127 | 17,889 | 573,22 | 15,2948 |
| 11 | 105 | 137,3 | 135,5 | 130,3333 | 131,3333 | 142,8698 | 140,0251 | 150 | -45 | -172 | 20,6 | 718,4 | 18,051 |
| 12 | 147 | 134,3636 | 114 | 125,3333 | 111 | 140,2189 | 137,2461 | 150 | -3 | -175 | 19 | 653,91 | 16,5955 |
| 13 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 14 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 15 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 16 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 17 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 18 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 19 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 20 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 21 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 22 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 23 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 24 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 25 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 26 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 27 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 28 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 29 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |

| | | | | | | | | | | | | | |
|------------|--|----------|---------|----------|-------------|------------|------------|----------|--|--|--|--|--|
| 30 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 31 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 32 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 33 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 34 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 35 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 36 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 37 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 38 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 39 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 40 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 41 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 42 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 43 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 44 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 45 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 46 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 47 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| 48 | | 135,4167 | 126 | 125 | 133 | 140,6936 | 136,1145 | 150 | | | | | |
| | | | | | | | | | | | | | |
| CFE | | -71,8216 | 4,5 | -26 | 12 | -132,9489 | -119,5421 | -175 | | | | | |
| MAD | | 19,9934 | 20,55 | 21,4815 | 22,9333 | 18,0132 | 17,811 | 19 | | | | | |
| MSE | | 533,5562 | 657,725 | 641,1359 | 736,5334 | 557,2582 | 520,7013 | 653,9091 | | | | | |
| MAPE | | 16,5166 | 16,6666 | 17,6756 | 18,3719 | 15,5859 | 15,2905 | 16,5955 | | | | | |
| Trk.Signal | | -3,5923 | 0,219 | -1,2103 | 0,5233 | -7,3806 | -6,7117 | -9,2105 | | | | | |
| R-square | | 0,1626 | 0,3616 | 0,2373 | 0,4545 | 0,3858 | 0,3326 | 0,6315 | | | | | |
| | | | m=2 | m=3 | m=2 | Alpha=0,07 | Alpha=0,23 | Alpha=0 | | | | | |
| | | | | | W(1)=1,0000 | F(0)=150 | F(0)=150 | Beta=150 | | | | | |
| | | | | | W(2)=2,0000 | | F'(0)=150 | F(0)=0 | | | | | |

PERAMALAN BESI

| 12-19-2007 Month | Actual Data | Forecast by SA | Forecast by 2-MA | Forecast by 3-MA | Forecast by 2-WMA | Forecast by SES | Forecast by DES | Forecast by AES | Forecast Error | CFE | MAD | MSE | MAPE (%) |
|---------------------|----------------|-------------------|---------------------|---------------------|----------------------|--------------------|--------------------|--------------------|-------------------|------|--------|----------|----------|
| 1 | 152 | | | | | | | | | | | | |
| 2 | 148 | 152 | | | | 152 | 152 | 152 | -4 | -4 | 4 | 16 | 2,7027 |
| 3 | 142 | 150 | 150 | | 149,3333 | 148 | 148 | 152 | -10 | -14 | 7 | 58 | 4,8725 |
| 4 | 123 | 147,3333 | 145 | 147,3333 | 144 | 142 | 142 | 152 | -29 | -43 | 14,333 | 319 | 11,1074 |
| 5 | 111 | 141,25 | 132,5 | 137,6667 | 129,3333 | 123 | 123 | 152 | -41 | -84 | 21 | 659,5 | 17,5648 |
| 6 | 100 | 135,2 | 117 | 125,3333 | 115 | 111 | 111 | 152 | -52 | -136 | 27,2 | 1068,4 | 24,4518 |
| 7 | 97 | 129,3333 | 105,5 | 111,3333 | 103,6667 | 100 | 100 | 152 | -55 | -191 | 31,833 | 1394,5 | 29,8267 |
| 8 | 104 | 124,7143 | 98,5 | 102,6667 | 98 | 97 | 97 | 152 | -48 | -239 | 34,143 | 1524,429 | 32,1591 |
| 9 | 109 | 122,125 | 100,5 | 100,3333 | 101,6667 | 104 | 104 | 152 | -43 | -282 | 35,25 | 1565 | 33,0704 |
| 10 | 99 | 120,6667 | 106,5 | 103,3333 | 107,3333 | 109 | 109 | 152 | -53 | -335 | 37,222 | 1703,222 | 35,3443 |
| 11 | 104 | 118,5 | 104 | 104 | 102,3333 | 99 | 99 | 152 | -48 | -383 | 38,3 | 1763,3 | 36,4253 |
| 12 | 103 | 117,1818 | 101,5 | 104 | 102,3333 | 104 | 104 | 152 | -49 | -432 | 39,273 | 1821,273 | 37,4387 |
| 13 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 14 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 15 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 16 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 17 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 18 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 19 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 20 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 21 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 22 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 23 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 24 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 25 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 26 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 27 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 28 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 29 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |

| | | | | | | | | | | | | | |
|------------|--|-----------|--------|---------|-------------|----------|----------|----------|--|--|--|--|--|
| 30 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 31 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 32 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 33 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 34 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 35 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 36 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 37 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 38 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 39 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 40 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 41 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 42 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 43 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 44 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 45 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 46 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 47 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| 48 | | 116 | 103,5 | 102 | 103,3333 | 103 | 103 | 152 | | | | | |
| | | | | | | | | | | | | | |
| CFE | | -218,3044 | -69 | -86 | -61 | -49 | -49,0001 | -432 | | | | | |
| MAD | | 19,8459 | 10 | 11,7778 | 9,2333 | 7,5455 | 7,5455 | 39,2727 | | | | | |
| MSE | | 486,7112 | 153,25 | 249,679 | 126,2778 | 80,6364 | 80,6365 | 1821,273 | | | | | |
| MAPE | | 18,6782 | 9,0771 | 10,9443 | 8,3791 | 6,7706 | 6,7706 | 37,4387 | | | | | |
| Trk.Signal | | -11 | -6,9 | -7,3019 | -6,6065 | -6,494 | -6,494 | -11 | | | | | |
| R-square | | | | | | | | | | | | | |
| | | | m=2 | m=3 | m=2 | Alpha=1 | Alpha=1 | Alpha=0 | | | | | |
| | | | | | W(1)=1,0000 | F(0)=152 | F(0)=152 | Beta=152 | | | | | |
| | | | | | W(2)=2,0000 | | F(0)=152 | F(0)=0 | | | | | |

PERAMALAN PIPA PVC

| 12-19-2007 Month | Actual Data | Forecast by SA | Forecast by 2-MA | Forecast by 3-MA | Forecast by 2-WMA | Forecast by SES | Forecast by DES | Forecast by AES | Forecast Error | CFE | MAD | MSE | MAPE (%) |
|---------------------|----------------|-------------------|---------------------|---------------------|----------------------|--------------------|--------------------|--------------------|-------------------|-----|---------|----------|----------|
| 1 | 112 | | | | | | | | | | | | |
| 2 | 124 | 112 | | | | 112 | 112 | 112 | 12 | 12 | 12 | 144 | 9,6774 |
| 3 | 121 | 118 | 118 | | 120 | 116,32 | 115,8988 | 112 | 9 | 21 | 10,5 | 112,5 | 8,5577 |
| 4 | 135 | 119 | 122,5 | 119 | 122 | 118,0048 | 118,2771 | 112 | 23 | 44 | 14,6667 | 251,3333 | 11,3842 |
| 5 | 124 | 123 | 128 | 126,6667 | 130,3333 | 124,1231 | 124,1501 | 112 | 12 | 56 | 14 | 224,5 | 10,9575 |
| 6 | 91 | 123,2 | 129,5 | 126,6667 | 127,6667 | 124,0788 | 125,1872 | 112 | -21 | 35 | 15,4 | 267,8 | 13,3814 |
| 7 | 112 | 117,8333 | 107,5 | 116,6667 | 102 | 112,1704 | 114,2716 | 112 | 0 | 35 | 12,8333 | 223,1667 | 11,1511 |
| 8 | 114 | 117 | 101,5 | 109 | 105 | 112,1091 | 111,5152 | 112 | 2 | 37 | 11,2857 | 191,8571 | 9,8087 |
| 9 | 113 | 116,625 | 113 | 105,6667 | 113,3333 | 112,7898 | 111,8129 | 112 | 1 | 38 | 10 | 168 | 8,6933 |
| 10 | 105 | 116,2222 | 113,5 | 113 | 113,3333 | 112,8655 | 112,2536 | 112 | -7 | 31 | 9,6667 | 154,7778 | 8,4681 |
| 11 | 107 | 115,1 | 109 | 110,6667 | 107,6667 | 110,0339 | 109,9784 | 112 | -5 | 26 | 9,2 | 141,8 | 8,0886 |
| 12 | 109 | 114,3636 | 106 | 108,3333 | 106,3333 | 108,9417 | 108,59 | 112 | -3 | 23 | 8,6364 | 129,7273 | 7,6035 |
| 13 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 14 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 15 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 16 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 17 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 18 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 19 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 20 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 21 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 22 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 23 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 24 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 25 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 26 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 27 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 28 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 29 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |

| | | | | | | | | | | | | | |
|------------|--|----------|---------|----------|-------------|------------|------------|----------|--|--|--|--|--|
| 30 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 31 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 32 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 33 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 34 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 35 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 36 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 37 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 38 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 39 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 40 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 41 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 42 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 43 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 44 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 45 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 46 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 47 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| 48 | | 113,9167 | 108 | 107 | 108,3333 | 108,9627 | 108,4665 | 112 | | | | | |
| | | | | | | | | | | | | | |
| CFE | | -37,3442 | -17,5 | -25,6667 | -16,6667 | -8,437 | -8,935 | 23 | | | | | |
| MAD | | 9,2131 | 8,85 | 9,2963 | 8,8 | 7,2824 | 7,7043 | 8,6364 | | | | | |
| MSE | | 156,6659 | 192,525 | 190,4074 | 181,2666 | 147,6074 | 153,897 | 129,7273 | | | | | |
| MAPE | | 8,5842 | 8,4972 | 8,8774 | 8,3981 | 6,8146 | 7,2088 | 7,6035 | | | | | |
| Trk.Signal | | -4,0534 | -1,9774 | -2,761 | -1,8939 | -1,1585 | -1,1597 | 2,6632 | | | | | |
| R-square | | 0,1745 | 0,6583 | 0,4615 | 0,7083 | 0,2022 | 0,2262 | 0,0349 | | | | | |
| | | | m=2 | m=3 | m=2 | Alpha=0,36 | Alpha=0,57 | Alpha=0 | | | | | |
| | | | | | W(1)=1,0000 | F(0)=112 | F(0)=112 | Beta=112 | | | | | |
| | | | | | W(2)=2,0000 | | F'(0)=112 | F(0)=0 | | | | | |

PERAMALAN GENTENG SAKURA ROOF

| 12-19-2007 Month | Actual Data | Forecast by SA | Forecast by 2-MA | Forecast by 3-MA | Forecast by 2-WMA | Forecast by SES | Forecast by DES | Forecast by AES | Forecast Error | CFE | MAD | MSE | MAPE (%) |
|---------------------|----------------|-------------------|---------------------|---------------------|----------------------|--------------------|--------------------|--------------------|-------------------|------|--------|---------|----------|
| 1 | 147 | | | | | | | | | | | | |
| 2 | 120 | 147 | | | | 147 | 147 | 147 | -27 | -27 | 27 | 729 | 22,5 |
| 3 | 159 | 133,5 | 133,5 | | 129 | 128,1 | 128,8452 | 147 | 12 | -15 | 19,5 | 436,5 | 15,0236 |
| 4 | 97 | 142 | 139,5 | 142 | 146 | 149,73 | 148,5331 | 147 | -50 | -65 | 29,667 | 1124,33 | 27,1979 |
| 5 | 86 | 130,75 | 128 | 125,3333 | 117,6667 | 112,819 | 114,5202 | 147 | -61 | -126 | 37,5 | 1773,5 | 38,1309 |
| 6 | 94 | 121,8 | 91,5 | 114 | 89,6667 | 94,0457 | 94,2412 | 147 | -53 | -179 | 40,6 | 1980,6 | 41,7814 |
| 7 | 100 | 117,1667 | 90 | 92,3333 | 91,3333 | 94,0137 | 93,422 | 147 | -47 | -226 | 41,667 | 2018,67 | 42,6511 |
| 8 | 96 | 114,7143 | 97 | 93,3333 | 98 | 98,2041 | 97,8185 | 147 | -51 | -277 | 43 | 2101,86 | 44,1474 |
| 9 | 106 | 112,375 | 98 | 96,6667 | 97,3333 | 96,6612 | 96,7382 | 147 | -41 | -318 | 42,75 | 2049,25 | 43,4639 |
| 10 | 106 | 111,6667 | 101 | 100,6667 | 102,6667 | 103,1984 | 102,9308 | 147 | -41 | -359 | 42,556 | 2008,33 | 42,9323 |
| 11 | 109 | 111,1 | 106 | 102,6667 | 106 | 105,1595 | 105,1952 | 147 | -38 | -397 | 42,1 | 1951,9 | 42,1253 |
| 12 | 104 | 110,9091 | 107,5 | 107 | 108 | 107,8479 | 107,8269 | 147 | -43 | -440 | 42,182 | 1942,55 | 42,0544 |
| 13 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 14 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 15 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 16 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 17 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 18 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 19 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 20 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 21 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 22 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 23 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 24 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 25 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 26 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 27 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 28 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 29 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |

| | | | | | | | | | | | | | |
|------------|--|-----------|---------|----------|-------------|-----------|------------|----------|--|--|--|--|--|
| 30 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 31 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 32 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 33 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 34 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 35 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 36 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 37 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 38 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 39 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 40 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 41 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 42 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 43 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 44 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 45 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 46 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 47 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| 48 | | 110,3333 | 106,5 | 106,3333 | 105,6667 | 105,1544 | 105,339 | 147 | | | | | |
| | | | | | | | | | | | | | |
| CFE | | -175,9817 | -35 | -76 | -28,6667 | -59,7795 | -60,0712 | -440 | | | | | |
| MAD | | 20,6347 | 14,3 | 15,4074 | 14,4667 | 15,0467 | 15,0735 | 42,1818 | | | | | |
| MSE | | 631,7699 | 443,8 | 466,963 | 451,2889 | 486,2577 | 479,8476 | 1942,545 | | | | | |
| MAPE | | 20,2845 | 14,0772 | 16,2645 | 13,9484 | 14,0443 | 14,117 | 42,0544 | | | | | |
| Trk.Signal | | -8,5284 | -2,4476 | -4,9327 | -1,9816 | -3,9729 | -3,9852 | -10,431 | | | | | |
| R-square | | | 0,8434 | | 0,8145 | | | | | | | | |
| | | | m=2 | m=3 | m=2 | Alpha=0,7 | Alpha=0,82 | Alpha=0 | | | | | |
| | | | | | W(1)=1,0000 | F(0)=147 | F(0)=147 | Beta=147 | | | | | |
| | | | | | W(2)=2,0000 | | F(0)=147 | F(0)=0 | | | | | |

PERAMALAN CAT TEMBOK VINOTEX

| 12-19-2007 Month | Actual Data | Forecast by SA | Forecast by 2-MA | Forecast by 3-MA | Forecast by 2-WMA | Forecast by SES | Forecast by DES | Forecast by AES | Forecast Error | CFE | MAD | MSE | MAPE (%) |
|---------------------|----------------|-------------------|---------------------|---------------------|----------------------|--------------------|--------------------|--------------------|-------------------|------|--------|---------|----------|
| 1 | 131 | | | | | | | | | | | | |
| 2 | 121 | 131 | | | | 131 | 131 | 131 | -10 | -10 | 10 | 100 | 8,2645 |
| 3 | 140 | 126 | 126 | | 124,3333 | 126,3 | 126,775 | 131 | 9 | -1 | 9,5 | 90,5 | 7,3465 |
| 4 | 86 | 130,6667 | 130,5 | 130,6667 | 133,6667 | 132,739 | 131,845 | 131 | -45 | -46 | 21,333 | 735,333 | 22,3395 |
| 5 | 81 | 119,5 | 113 | 115,6667 | 104 | 110,7717 | 113,0966 | 131 | -50 | -96 | 28,5 | 1176,5 | 32,1868 |
| 6 | 97 | 111,8 | 83,5 | 102,3333 | 82,6667 | 96,779 | 97,2391 | 131 | -34 | -130 | 29,6 | 1172,4 | 32,7597 |
| 7 | 106 | 109,3333 | 89 | 88 | 91,6667 | 96,8829 | 95,1955 | 131 | -25 | -155 | 28,833 | 1081,17 | 31,2306 |
| 8 | 87 | 108,8571 | 101,5 | 94,6667 | 103 | 101,1679 | 99,5101 | 131 | -44 | -199 | 31 | 1203,29 | 33,994 |
| 9 | 121 | 106,125 | 96,5 | 96,6667 | 93,3333 | 94,509 | 94,7531 | 131 | -10 | -209 | 28,375 | 1065,38 | 30,7778 |
| 10 | 108 | 107,7778 | 104 | 104,6667 | 109,6667 | 106,9598 | 105,2597 | 131 | -23 | -232 | 27,778 | 1005,78 | 29,7243 |
| 11 | 121 | 107,8 | 114,5 | 105,3333 | 112,3333 | 107,4487 | 107,7045 | 131 | -10 | -242 | 26 | 915,2 | 27,5783 |
| 12 | 104 | 109 | 114,5 | 116,6667 | 116,6667 | 113,8178 | 113,6213 | 131 | -27 | -269 | 26,091 | 898,273 | 27,4314 |
| 13 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 14 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 15 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 16 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 17 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 18 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 19 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 20 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 21 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 22 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 23 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 24 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 25 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 26 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 27 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 28 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 29 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |

| | | | | | | | | | | | | | |
|------------|--|----------|---------|----------|-------------|------------|------------|----------|--|--|--|--|--|
| 30 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 31 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 32 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 33 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 34 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 35 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 36 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 37 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 38 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 39 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 40 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 41 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 42 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 43 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 44 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 45 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 46 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 47 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| 48 | | 108,5833 | 112,5 | 111 | 109,6667 | 109,2034 | 110,2811 | 131 | | | | | |
| | | | | | | | | | | | | | |
| CFE | | -95,8599 | -22 | -43,6667 | -20,3333 | -46,3757 | -43,9999 | -269 | | | | | |
| MAD | | 16,4049 | 18,1 | 18,4815 | 18,1667 | 15,8743 | 16,0568 | 26,0909 | | | | | |
| MSE | | 445,6184 | 465,05 | 513,0247 | 471,7223 | 420,4873 | 422,3545 | 898,2727 | | | | | |
| MAPE | | 17,225 | 18,7292 | 19,3724 | 18,5452 | 16,1603 | 16,3574 | 27,4314 | | | | | |
| Trk.Signal | | -5,8434 | -1,2155 | -2,3627 | -1,1193 | -2,9214 | -2,7403 | -10,3101 | | | | | |
| R-square | | 0,5378 | 0,6948 | 0,9204 | 0,7227 | 0,6385 | 0,6502 | | | | | | |
| | | | m=2 | m=3 | m=2 | Alpha=0,47 | Alpha=0,65 | Alpha=0 | | | | | |
| | | | | | W(1)=1,0000 | F(0)=131 | F(0)=131 | Beta=131 | | | | | |
| | | | | | W(2)=2,0000 | | F'(0)=131 | F(0)=0 | | | | | |

PERAMALAN KERAMIK ARWANA POLOS

| 12-19-2007 Month | Actual Data | Forecast by SA | Forecast by 2-MA | Forecast by 3-MA | Forecast by 2-WMA | Forecast by SES | Forecast by DES | Forecast by AES | Forecast Error | CFE | MAD | MSE | MAPE (%) |
|---------------------|----------------|-------------------|---------------------|---------------------|----------------------|--------------------|--------------------|--------------------|-------------------|------|---------|---------|----------|
| 1 | 121 | | | | | | | | | | | | |
| 2 | 135 | 121 | | | | 121 | 121 | 121 | 14 | 14 | 14 | 196 | 10,3704 |
| 3 | 120 | 128 | 128 | | 130,3333 | 124,08 | 122,9166 | 121 | -1 | 13 | 7,5 | 98,5 | 5,6019 |
| 4 | 106 | 125,3333 | 127,5 | 125,3333 | 125 | 123,1824 | 123,278 | 121 | -15 | -2 | 10 | 140,667 | 8,4515 |
| 5 | 83 | 120,5 | 113 | 120,3333 | 110,6667 | 119,4023 | 121,0561 | 121 | -38 | -40 | 17 | 466,5 | 17,7844 |
| 6 | 83 | 113 | 94,5 | 103 | 90,6667 | 111,3938 | 114,9643 | 121 | -38 | -78 | 21,2 | 662 | 23,3842 |
| 7 | 108 | 108 | 83 | 90,6667 | 83 | 105,1471 | 108,1706 | 121 | -13 | -91 | 19,8333 | 579,833 | 21,493 |
| 8 | 94 | 108 | 95,5 | 91,3333 | 99,6667 | 105,7748 | 105,4508 | 121 | -27 | -118 | 20,8571 | 601,143 | 22,5259 |
| 9 | 103 | 106,25 | 101 | 95 | 98,6667 | 103,1843 | 102,8037 | 121 | -18 | -136 | 20,5 | 566,5 | 21,8946 |
| 10 | 134 | 105,8889 | 98,5 | 101,6667 | 100 | 103,1438 | 101,78 | 121 | 13 | -123 | 19,6667 | 522,333 | 20,5398 |
| 11 | 95 | 108,7 | 118,5 | 110,3333 | 123,6667 | 109,9321 | 105,7845 | 121 | -26 | -149 | 20,3 | 537,7 | 21,2227 |
| 12 | 99 | 107,4545 | 114,5 | 110,6667 | 108 | 106,6471 | 105,8976 | 121 | -22 | -171 | 20,4545 | 532,818 | 21,3136 |
| 13 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 14 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 15 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 16 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 17 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 18 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 19 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 20 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 21 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 22 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 23 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 24 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 25 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 26 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 27 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 28 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 29 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |

| | | | | | | | | | | | | | |
|------------|--|----------|---------|----------|-------------|------------|------------|----------|--|--|--|--|--|
| 30 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 31 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 32 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 33 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 34 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 35 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 36 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 37 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 38 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 39 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 40 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 41 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 42 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 43 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 44 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 45 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 46 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 47 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| 48 | | 106,75 | 97 | 109,3333 | 97,6667 | 104,9647 | 104,9981 | 121 | | | | | |
| | | | | | | | | | | | | | |
| CFE | | -92,1268 | -49 | -43,3333 | -44,6666 | -72,8877 | -73,1023 | -171 | | | | | |
| MAD | | 16,0317 | 17,4 | 18,2222 | 17,1333 | 15,3005 | 15,085 | 20,4545 | | | | | |
| MSE | | 381,454 | 424,25 | 439,5309 | 402,6666 | 365,4168 | 391,4751 | 532,8182 | | | | | |
| MAPE | | 16,2354 | 17,0521 | 18,447 | 16,7129 | 15,4422 | 15,3052 | 21,3136 | | | | | |
| Trk.Signal | | -5,7465 | -2,8161 | -2,378 | -2,607 | -4,7637 | -4,846 | -8,36 | | | | | |
| R-square | | 0,4548 | | 0,7485 | | 0,3637 | 0,3829 | 0,83 | | | | | |
| | | | m=2 | m=3 | m=2 | Alpha=0,22 | Alpha=0,37 | Alpha=0 | | | | | |
| | | | | | W(1)=1,0000 | F(0)=121 | F(0)=121 | Beta=121 | | | | | |
| | | | | | W(2)=2,0000 | | F(0)=121 | F(0)=0 | | | | | |

PERAMALAN SELANG

| 12-19-2007 Month | Actual Data | Forecast by SA | Forecast by 2-MA | Forecast by 3-MA | Forecast by 2-WMA | Forecast by SES | Forecast by DES | Forecast by AES | Forecast Error | CFE | MAD | MSE | MAPE (%) |
|---------------------|----------------|-------------------|---------------------|---------------------|----------------------|--------------------|--------------------|--------------------|-------------------|------|---------|---------|----------|
| 1 | 152 | | | | | | | | | | | | |
| 2 | 169 | 152 | | | | 152 | 152 | 152 | 17 | 17 | 17 | 289 | 10,0592 |
| 3 | 123 | 160,5 | 160,5 | | 163,3333 | 161,86 | 162,0793 | 152 | -29 | -12 | 23 | 565 | 16,8182 |
| 4 | 108 | 148 | 146 | 148 | 138,3333 | 139,3212 | 139,4424 | 152 | -44 | -56 | 30 | 1022 | 24,7924 |
| 5 | 105 | 138 | 115,5 | 133,3333 | 113 | 121,1549 | 119,6027 | 152 | -47 | -103 | 34,25 | 1318,75 | 29,7848 |
| 6 | 97 | 131,4 | 106,5 | 112 | 106 | 111,7851 | 109,8953 | 152 | -55 | -158 | 38,4 | 1660 | 35,168 |
| 7 | 109 | 125,6667 | 101 | 103,3333 | 99,6667 | 103,2097 | 101,7361 | 152 | -43 | -201 | 39,1667 | 1691,5 | 35,8816 |
| 8 | 89 | 123,2857 | 103 | 103,6667 | 105 | 106,5681 | 105,6113 | 152 | -63 | -264 | 42,5714 | 2016,86 | 40,868 |
| 9 | 156 | 119 | 99 | 98,3333 | 95,6667 | 96,3786 | 95,9674 | 152 | 4 | -260 | 37,75 | 1766,75 | 36,08 |
| 10 | 131 | 123,1111 | 122,5 | 118 | 133,6667 | 130,959 | 131,0505 | 152 | -21 | -281 | 35,8889 | 1619,45 | 33,8523 |
| 11 | 126 | 123,9 | 143,5 | 125,3333 | 139,3333 | 130,9828 | 132,8765 | 152 | -26 | -307 | 34,9 | 1525,1 | 32,5306 |
| 12 | 121 | 124,0909 | 128,5 | 137,6667 | 127,6667 | 128,0928 | 128,896 | 152 | -31 | -338 | 34,5455 | 1473,82 | 31,9023 |
| 13 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 14 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 15 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 16 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 17 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 18 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 19 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 20 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 21 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 22 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 23 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 24 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 25 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 26 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 27 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 28 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 29 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |

| | | | | | | | | | | | | | |
|------------|--|-----------|---------|----------|-------------|------------|------------|----------|--|--|--|--|--|
| 30 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 31 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 32 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 33 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 34 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 35 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 36 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 37 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 38 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 39 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 40 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 41 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 42 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 43 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 44 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 45 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 46 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 47 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| 48 | | 123,8333 | 123,5 | 126 | 122,6667 | 123,979 | 124,0039 | 152 | | | | | |
| | | | | | | | | | | | | | |
| CFE | | -134,9544 | -61 | -37,6667 | -56,6666 | -48,3122 | -45,1576 | -338 | | | | | |
| MAD | | 23,9029 | 20,8 | 21,2963 | 19,6 | 19,3834 | 19,4319 | 34,5455 | | | | | |
| MSE | | 769,6451 | 699,45 | 738,6296 | 690,4444 | 657,4282 | 656,9622 | 1473,818 | | | | | |
| MAPE | | 21,1138 | 17,1651 | 18,0395 | 16,1118 | 15,8545 | 15,8162 | 31,9023 | | | | | |
| Trk.Signal | | -5,6459 | -2,9327 | -1,7687 | -2,8912 | -2,4924 | -2,3239 | -9,7842 | | | | | |
| R-square | | 0,6224 | | 0,7765 | | 0,7559 | 0,7942 | | | | | | |
| | | | m=2 | m=3 | m=2 | Alpha=0,58 | Alpha=0,77 | Alpha=0 | | | | | |
| | | | | | W(1)=1,0000 | F(0)=152 | F(0)=152 | Beta=152 | | | | | |
| | | | | | W(2)=2,0000 | | F'(0)=152 | F(0)=0 | | | | | |

PERAMALAN GEMBOK GLOBE

| 12-19-2007 Month | Actual Data | Forecast by SA | Forecast by 2-MA | Forecast by 3-MA | Forecast by 2-WMA | Forecast by SES | Forecast by DES | Forecast by AES | Forecast Error | CFE | MAD | MSE | MAPE (%) |
|---------------------|----------------|-------------------|---------------------|---------------------|----------------------|--------------------|--------------------|--------------------|-------------------|-----|---------|---------|----------|
| 1 | 100 | | | | | | | | | | | | |
| 2 | 105 | 100 | | | | 100 | 100 | 100 | 5 | 5 | 5 | 25 | 4,7619 |
| 3 | 112 | 102,5 | 102,5 | | 103,3333 | 103,55 | 103,6125 | 100 | 12 | 17 | 8,5 | 84,5 | 7,7381 |
| 4 | 121 | 105,6667 | 108,5 | 105,6667 | 109,6667 | 109,5495 | 109,7537 | 100 | 21 | 38 | 12,6667 | 203,333 | 10,9439 |
| 5 | 90 | 109,5 | 116,5 | 112,6667 | 118 | 117,6794 | 118,0173 | 100 | -10 | 28 | 12 | 177,5 | 10,9857 |
| 6 | 98 | 105,6 | 105,5 | 107,6667 | 100,3333 | 98,027 | 97,9608 | 100 | -2 | 26 | 10 | 142,8 | 9,1967 |
| 7 | 137 | 104,3333 | 94 | 103 | 95,3333 | 98,0078 | 97,5378 | 100 | 37 | 63 | 14,5 | 347,167 | 12,1651 |
| 8 | 82 | 109 | 117,5 | 108,3333 | 124 | 125,6923 | 126,0397 | 100 | -18 | 45 | 15 | 343,857 | 13,5631 |
| 9 | 89 | 105,625 | 109,5 | 105,6667 | 100,3333 | 94,6708 | 94,8624 | 100 | -11 | 34 | 14,5 | 316 | 13,4127 |
| 10 | 82 | 103,7778 | 85,5 | 102,6667 | 86,6667 | 90,6445 | 89,9253 | 100 | -18 | 16 | 14,8889 | 316,889 | 14,3614 |
| 11 | 71 | 101,6 | 85,5 | 84,3333 | 84,3333 | 84,5069 | 84,0882 | 100 | -29 | -13 | 16,3 | 369,3 | 17,0098 |
| 12 | 82 | 98,8182 | 76,5 | 80,6667 | 74,6667 | 74,917 | 74,5006 | 100 | -18 | -31 | 16,4545 | 365,182 | 17,459 |
| 13 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 14 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 15 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 16 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 17 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 18 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 19 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 20 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 21 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 22 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 23 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 24 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 25 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 26 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 27 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 28 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 29 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |

| | | | | | | | | | | | | | |
|------------|--|----------|---------|----------|-------------|------------|------------|----------|--|--|--|--|--|
| 30 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 31 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 32 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 33 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 34 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 35 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 36 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 37 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 38 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 39 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 40 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 41 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 42 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 43 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 44 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 45 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 46 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 47 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| 48 | | 97,4167 | 76,5 | 78,3333 | 78,3333 | 79,9459 | 79,7032 | 100 | | | | | |
| | | | | | | | | | | | | | |
| CFE | | -77,421 | -37,5 | -58,6667 | -32,6667 | -28,2452 | -27,2984 | -31 | | | | | |
| MAD | | 18,4019 | 17,85 | 17,7778 | 17,0667 | 15,4724 | 15,5061 | 16,4545 | | | | | |
| MSE | | 414,0323 | 478,725 | 397,358 | 487,4889 | 432,9597 | 438,9343 | 365,1818 | | | | | |
| MAPE | | 20,0869 | 18,5022 | 18,7764 | 17,8377 | 16,2611 | 16,2781 | 17,459 | | | | | |
| Trk.Signal | | -4,2072 | -2,1008 | -3,3 | -1,9141 | -1,8255 | -1,7605 | -1,884 | | | | | |
| R-square | | 0,1676 | 0,4988 | 0,3781 | 0,5689 | 0,5449 | 0,5647 | 0,0222 | | | | | |
| | | | m=2 | m=3 | m=2 | Alpha=0,71 | Alpha=0,85 | Alpha=0 | | | | | |
| | | | | | W(1)=1,0000 | F(0)=100 | F(0)=100 | Beta=100 | | | | | |
| | | | | | W(2)=2,0000 | | F'(0)=100 | F(0)=0 | | | | | |

PERAMALAN MUR DAN BAUT

| 12-19-2007 Month | Actual Data | Forecast by SA | Forecast by 2-MA | Forecast by 3-MA | Forecast by 2-WMA | Forecast by SES | Forecast by DES | Forecast by AES | Forecast Error | CFE | MAD | MSE | MAPE (%) |
|---------------------|----------------|-------------------|---------------------|---------------------|----------------------|--------------------|--------------------|--------------------|-------------------|-----|---------|---------|----------|
| 1 | 99 | | | | | | | | | | | | |
| 2 | 108 | 99 | | | | 99 | 99 | 99 | 9 | 9 | 9 | 81 | 8,3333 |
| 3 | 114 | 103,5 | 103,5 | | 105 | 99,81 | 99,3249 | 99 | 15 | 24 | 12 | 153 | 10,7456 |
| 4 | 159 | 107 | 111 | 107 | 112 | 101,0871 | 100,0678 | 99 | 60 | 84 | 28 | 1302 | 19,7424 |
| 5 | 99 | 120 | 136,5 | 127 | 144 | 106,2993 | 102,6827 | 99 | 0 | 84 | 21 | 976,5 | 14,8068 |
| 6 | 91 | 115,8 | 129 | 124 | 119 | 105,6423 | 104,2654 | 99 | -8 | 76 | 18,4 | 794 | 13,6037 |
| 7 | 139 | 111,6667 | 95 | 116,3333 | 93,6667 | 104,3245 | 104,8249 | 99 | 40 | 116 | 22 | 928,333 | 16,1325 |
| 8 | 87 | 115,5714 | 115 | 109,6667 | 123 | 107,4453 | 106,4258 | 99 | -12 | 104 | 20,5714 | 816,286 | 15,7983 |
| 9 | 108 | 112 | 113 | 105,6667 | 104,3333 | 105,6052 | 106,7748 | 99 | 9 | 113 | 19,125 | 724,375 | 14,8652 |
| 10 | 106 | 111,5556 | 97,5 | 111,3333 | 101 | 105,8208 | 107,048 | 99 | 7 | 120 | 17,7778 | 649,333 | 13,9473 |
| 11 | 124 | 111 | 107 | 100,3333 | 106,6667 | 105,8369 | 107,1894 | 99 | 25 | 145 | 18,5 | 646,9 | 14,5687 |
| 12 | 134 | 112,1818 | 115 | 112,6667 | 118 | 107,4716 | 107,8891 | 99 | 35 | 180 | 20 | 699,455 | 15,6187 |
| 13 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 14 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 15 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 16 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 17 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 18 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 19 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 20 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 21 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 22 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 23 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 24 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 25 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 26 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 27 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 28 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 29 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |

| | | | | | | | | | | | | | |
|------------|--|----------|---------|----------|-------------|------------|------------|----------|--|--|--|--|--|
| 30 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 31 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 32 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 33 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 34 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 35 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 36 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 37 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 38 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 39 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 40 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 41 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 42 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 43 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 44 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 45 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 46 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 47 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| 48 | | 114 | 129 | 121,3333 | 130,6667 | 109,8591 | 109,2907 | 99 | | | | | |
| | | | | | | | | | | | | | |
| CFE | | 49,7245 | 38,5 | 33 | 34,3333 | 120,6571 | 123,5071 | 180 | | | | | |
| MAD | | 19,7799 | 25,55 | 23,4444 | 25,2333 | 18,6755 | 18,0319 | 20 | | | | | |
| MSE | | 564,2386 | 873,175 | 739,2963 | 904,5 | 596,7056 | 588,2874 | 699,4545 | | | | | |
| MAPE | | 16,9935 | 22,3412 | 20,2011 | 22,1702 | 15,086 | 14,4226 | 15,6187 | | | | | |
| Trk.Signal | | 2,5139 | 1,5068 | 1,4076 | 1,3606 | 6,4607 | 6,8494 | 9 | | | | | |
| R-square | | 0,1198 | 0,3526 | 0,1521 | 0,4131 | 0,2978 | 0,3158 | 0,6203 | | | | | |
| | | | m=2 | m=3 | m=2 | Alpha=0,09 | Alpha=0,19 | Alpha=0 | | | | | |
| | | | | | W(1)=1,0000 | F(0)=99 | F(0)=99 | Beta=99 | | | | | |
| | | | | | W(2)=2,0000 | | F(0)=99 | F(0)=0 | | | | | |

PERAMALAN AMPLAS KAIN

| 12-19-2007 Month | Actual Data | Forecast by SA | Forecast by 2-MA | Forecast by 3-MA | Forecast by 2-WMA | Forecast by SES | Forecast by DES | Forecast by AES | Forecast Error | CFE | MAD | MSE | MAPE (%) |
|---------------------|----------------|-------------------|---------------------|---------------------|----------------------|--------------------|--------------------|--------------------|-------------------|-----|---------|---------|----------|
| 1 | 58 | | | | | | | | | | | | |
| 2 | 53 | 58 | | | | 58 | 58 | 58 | -5 | -5 | 5 | 25 | 9,434 |
| 3 | 68 | 55,5 | 55,5 | | 54,6667 | 56,9 | 57,422 | 58 | 10 | 5 | 7,5 | 62,5 | 12,0699 |
| 4 | 73 | 59,6667 | 60,5 | 59,6667 | 63 | 59,342 | 58,393 | 58 | 15 | 20 | 10 | 116,667 | 14,8959 |
| 5 | 70 | 63 | 70,5 | 64,6667 | 71,3333 | 62,3468 | 60,5046 | 58 | 12 | 32 | 10,5 | 123,5 | 15,4577 |
| 6 | 54 | 64,4 | 71,5 | 70,3333 | 71 | 64,0305 | 62,522 | 58 | -4 | 28 | 9,2 | 102 | 13,8476 |
| 7 | 68 | 62,6667 | 62 | 65,6667 | 59,3333 | 61,8238 | 62,4157 | 58 | 10 | 38 | 9,3333 | 101,667 | 13,9907 |
| 8 | 63 | 63,4286 | 61 | 64 | 63,3333 | 63,1825 | 63,0149 | 58 | 5 | 43 | 8,7143 | 90,7143 | 13,1258 |
| 9 | 77 | 63,375 | 65,5 | 61,6667 | 64,6667 | 63,1424 | 63,2742 | 58 | 19 | 62 | 10 | 124,5 | 14,5695 |
| 10 | 79 | 64,8889 | 70 | 69,3333 | 72,3333 | 66,1911 | 64,9739 | 58 | 21 | 83 | 11,2222 | 159,667 | 15,9042 |
| 11 | 64 | 66,3 | 78 | 73 | 78,3333 | 69,009 | 67,3357 | 58 | 6 | 89 | 10,7 | 147,3 | 15,2513 |
| 12 | 68 | 66,0909 | 71,5 | 73,3333 | 69 | 67,907 | 67,9789 | 58 | 10 | 99 | 10,6364 | 143 | 15,2017 |
| 13 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 14 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 15 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 16 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 17 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 18 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 19 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 20 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 21 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 22 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 23 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 24 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 25 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 26 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 27 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 28 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 29 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |

| | | | | | | | | | | | | | |
|------------|--|---------|---------|----------|-------------|------------|------------|---------|--|--|--|--|--|
| 30 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 31 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 32 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 33 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 34 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 35 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 36 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 37 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 38 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 39 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 40 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 41 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 42 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 43 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 44 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 45 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 46 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 47 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| 48 | | 66,25 | 66 | 70,3333 | 66,6667 | 67,9275 | 68,2615 | 58 | | | | | |
| | | | | | | | | | | | | | |
| CFE | | 49,6833 | 18 | 14,3333 | 17 | 45,1249 | 51,1651 | 99 | | | | | |
| MAD | | 7,8128 | 8,9 | 8,6296 | 8,5 | 7,779 | 7,7191 | 10,6364 | | | | | |
| MSE | | 85,3195 | 108,05 | 101,9383 | 104,6778 | 83,0285 | 85,4988 | 143 | | | | | |
| MAPE | | 11,4384 | 13,3975 | 12,8005 | 12,8289 | 11,4111 | 11,2186 | 15,2017 | | | | | |
| Trk.Signal | | 6,3592 | 2,0225 | 1,6609 | 2 | 5,8009 | 6,6284 | 9,3077 | | | | | |
| R-square | | 0,4989 | 0,9676 | 0,4585 | | 0,4896 | 0,5352 | | | | | | |
| | | | m=2 | m=3 | m=2 | Alpha=0,22 | Alpha=0,34 | Alpha=0 | | | | | |
| | | | | | W(1)=1,0000 | F(0)=58 | F(0)=58 | Beta=58 | | | | | |
| | | | | | W(2)=2,0000 | | F'(0)=58 | F(0)=0 | | | | | |

PERAMALAN PALU

| 12-19-2007 Month | Actual Data | Forecast by SA | Forecast by 2-MA | Forecast by 3-MA | Forecast by 2-WMA | Forecast by SES | Forecast by DES | Forecast by AES | Forecast Error | CFE | MAD | MSE | MAPE (%) |
|---------------------|----------------|-------------------|---------------------|---------------------|----------------------|--------------------|--------------------|--------------------|-------------------|-----|--------|---------|----------|
| 1 | 59 | | | | | | | | | | | | |
| 2 | 54 | 59 | | | | 59 | 59 | 59 | -5 | -5 | 5 | 25 | 9,2593 |
| 3 | 58 | 56,5 | 56,5 | | 55,6667 | 58 | 58,5195 | 59 | -1 | -6 | 3 | 13 | 5,4917 |
| 4 | 68 | 57 | 56 | 57 | 56,6667 | 58 | 58,2408 | 59 | 9 | 3 | 5 | 35,6667 | 8,0729 |
| 5 | 67 | 59,75 | 63 | 60 | 64,6667 | 60 | 59,046 | 59 | 8 | 11 | 5,75 | 42,75 | 9,0397 |
| 6 | 63 | 61,2 | 67,5 | 64,3333 | 67,3333 | 61,4 | 60,1937 | 59 | 4 | 15 | 5,4 | 37,4 | 8,5016 |
| 7 | 61 | 61,5 | 65 | 66 | 64,3333 | 61,72 | 61,0098 | 59 | 2 | 17 | 4,8333 | 31,8333 | 7,6311 |
| 8 | 70 | 61,4286 | 62 | 63,6667 | 61,6667 | 61,576 | 61,3974 | 59 | 11 | 28 | 5,7143 | 44,5714 | 8,7859 |
| 9 | 57 | 62,5 | 65,5 | 64,6667 | 67 | 63,2608 | 62,4087 | 59 | -2 | 26 | 5,25 | 39,5 | 8,1262 |
| 10 | 62 | 61,8889 | 63,5 | 62,6667 | 61,3333 | 62,0086 | 62,3704 | 59 | 3 | 29 | 5 | 36,1111 | 7,761 |
| 11 | 58 | 61,9 | 59,5 | 63 | 60,3333 | 62,0069 | 62,3165 | 59 | -1 | 28 | 4,6 | 32,6 | 7,1573 |
| 12 | 65 | 61,5455 | 60 | 59 | 59,3333 | 61,2055 | 61,8761 | 59 | 6 | 34 | 4,7273 | 32,9091 | 7,3458 |
| 13 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 14 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 15 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 16 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 17 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 18 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 19 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 20 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 21 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 22 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 23 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 24 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 25 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 26 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 27 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 28 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 29 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |

| | | | | | | | | | | | | | |
|------------|--|---------|--------|---------|-------------|-----------|------------|---------|--|--|--|--|--|
| 30 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 31 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 32 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 33 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 34 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 35 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 36 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 37 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 38 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 39 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 40 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 41 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 42 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 43 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 44 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 45 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 46 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 47 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| 48 | | 61,8333 | 61,5 | 61,6667 | 62,6667 | 61,9644 | 61,9666 | 59 | | | | | |
| | | | | | | | | | | | | | |
| CFE | | 18,7871 | 10,5 | 10,6667 | 10,6667 | 14,8221 | 16,6211 | 34 | | | | | |
| MAD | | 4,417 | 5,05 | 5,5556 | 5,0667 | 4,2559 | 4,3519 | 4,7273 | | | | | |
| MSE | | 30,4707 | 36,425 | 39,679 | 37,6667 | 28,8812 | 29,4036 | 32,9091 | | | | | |
| MAPE | | 6,9665 | 7,8942 | 8,7069 | 7,978 | 6,7192 | 6,8612 | 7,3458 | | | | | |
| Trk.Signal | | 4,2534 | 2,0792 | 1,92 | 2,1053 | 3,4827 | 3,8193 | 7,1923 | | | | | |
| R-square | | 0,2893 | 0,7683 | 0,5234 | 0,8442 | 0,1963 | 0,2021 | 0,4091 | | | | | |
| | | | m=2 | m=3 | m=2 | Alpha=0,2 | Alpha=0,31 | Alpha=0 | | | | | |
| | | | | | W(1)=1,0000 | F(0)=59 | F(0)=59 | Beta=59 | | | | | |
| | | | | | W(2)=2,0000 | | F(0)=59 | F(0)=0 | | | | | |

PERAMALAN PAKU

| 12-19-2007 Month | Actual Data | Forecast by SA | Forecast by 2-MA | Forecast by 3-MA | Forecast by 2-WMA | Forecast by SES | Forecast by DES | Forecast by AES | Forecast Error | CFE | MAD | MSE | MAPE (%) |
|---------------------|----------------|-------------------|---------------------|---------------------|----------------------|--------------------|--------------------|--------------------|-------------------|-----|--------|---------|----------|
| 1 | 79 | | | | | | | | | | | | |
| 2 | 89 | 79 | | | | 79 | 79 | 79 | 10 | 10 | 10 | 100 | 11,236 |
| 3 | 78 | 84 | 84 | | 85,6667 | 81 | 85,084 | 79 | -1 | 9 | 5,5 | 50,5 | 6,259 |
| 4 | 83 | 82 | 83,5 | 82 | 81,6667 | 80,4 | 81,0686 | 79 | 4 | 13 | 5 | 39 | 5,7791 |
| 5 | 95 | 82,25 | 80,5 | 83,3333 | 81,3333 | 80,92 | 82,0493 | 79 | 16 | 29 | 7,75 | 93,25 | 8,5448 |
| 6 | 90 | 84,8 | 89 | 85,3333 | 91 | 83,736 | 89,976 | 79 | 11 | 40 | 8,4 | 98,8 | 9,2803 |
| 7 | 84 | 85,6667 | 92,5 | 89,3333 | 91,6667 | 84,9888 | 90,3742 | 79 | 5 | 45 | 7,8333 | 86,5 | 8,7257 |
| 8 | 93 | 85,4286 | 87 | 89,6667 | 86 | 84,791 | 86,5154 | 79 | 14 | 59 | 8,7143 | 102,143 | 9,6297 |
| 9 | 95 | 86,375 | 88,5 | 89 | 90 | 86,4328 | 90,2739 | 79 | 16 | 75 | 9,625 | 121,375 | 10,5312 |
| 10 | 88 | 87,3333 | 94 | 90,6667 | 94,3333 | 88,1463 | 93,3312 | 79 | 9 | 84 | 9,5556 | 116,889 | 10,4975 |
| 11 | 81 | 87,4 | 91,5 | 92 | 90,3333 | 88,117 | 90,2357 | 79 | 2 | 86 | 8,8 | 105,6 | 9,6946 |
| 12 | 74 | 86,8182 | 84,5 | 88 | 83,3333 | 86,6936 | 84,4669 | 79 | -5 | 81 | 8,4545 | 98,2727 | 9,4275 |
| 13 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 14 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 15 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 16 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 17 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 18 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 19 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 20 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 21 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 22 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 23 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 24 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 25 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 26 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 27 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 28 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 29 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |

| | | | | | | | | | | | | | |
|------------|--|---------|--------|---------|-------------|-----------|------------|---------|--|--|--|--|--|
| 30 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 31 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 32 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 33 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 34 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 35 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 36 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 37 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 38 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 39 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 40 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 41 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 42 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 43 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 44 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 45 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 46 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 47 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| 48 | | 85,75 | 77,5 | 81 | 76,3333 | 84,1549 | 77,8196 | 79 | | | | | |
| | | | | | | | | | | | | | |
| CFE | | 18,9282 | -14 | -6,3333 | -14,3333 | 25,7744 | -2,375 | 81 | | | | | |
| MAD | | 6,6089 | 7 | 6,6296 | 6,8333 | 6,6969 | 6,7826 | 8,4545 | | | | | |
| MSE | | 60,6189 | 65,45 | 62,0617 | 59,5444 | 64,2551 | 59,0841 | 98,2727 | | | | | |
| MAPE | | 7,6834 | 8,2052 | 7,8277 | 8,0182 | 7,7385 | 7,9495 | 9,4275 | | | | | |
| Trk.Signal | | 2,8641 | -2 | -0,9553 | -2,0976 | 3,8487 | -0,3502 | 9,5806 | | | | | |
| R-square | | 0,2101 | 0,4039 | 0,2406 | 0,4323 | 0,3422 | 0,4418 | | | | | | |
| | | | m=2 | m=3 | m=2 | Alpha=0,2 | Alpha=0,78 | Alpha=0 | | | | | |
| | | | | | W(1)=1,0000 | F(0)=79 | F(0)=79 | Beta=79 | | | | | |
| | | | | | W(2)=2,0000 | | F'(0)=79 | F(0)=0 | | | | | |

PERAMALAN OBENG

| 12-19-2007 Month | Actual Data | Forecast by SA | Forecast by 2-MA | Forecast by 3-MA | Forecast by 2-WMA | Forecast by SES | Forecast by DES | Forecast by AES | Forecast Error | CFE | MAD | MSE | MAPE (%) |
|---------------------|----------------|-------------------|---------------------|---------------------|----------------------|--------------------|--------------------|--------------------|-------------------|-----|--------|---------|----------|
| 1 | 49 | | | | | | | | | | | | |
| 2 | 69 | 49 | | | | 49 | 49 | 49 | 20 | 20 | 20 | 400 | 28,9855 |
| 3 | 63 | 59 | 59 | | 62,3333 | 63 | 63,112 | 49 | 14 | 34 | 17 | 298 | 25,6039 |
| 4 | 66 | 60,3333 | 66 | 60,3333 | 65 | 63 | 63,3942 | 49 | 17 | 51 | 17 | 295 | 25,6551 |
| 5 | 59 | 61,75 | 64,5 | 66 | 65 | 65,1 | 65,2401 | 49 | 10 | 61 | 15,25 | 246,25 | 23,4786 |
| 6 | 62 | 61,2 | 62,5 | 62,6667 | 61,3333 | 60,83 | 60,8843 | 49 | 13 | 74 | 14,8 | 230,8 | 22,9764 |
| 7 | 78 | 61,3333 | 60,5 | 62,3333 | 61 | 61,649 | 61,56 | 49 | 29 | 103 | 17,167 | 332,5 | 25,3436 |
| 8 | 73 | 63,7143 | 70 | 66,3333 | 72,6667 | 73,0947 | 73,1774 | 49 | 24 | 127 | 18,143 | 367,286 | 26,4198 |
| 9 | 80 | 64,875 | 75,5 | 71 | 74,6667 | 73,0284 | 73,3496 | 49 | 31 | 158 | 19,75 | 441,5 | 27,961 |
| 10 | 71 | 66,5556 | 76,5 | 77 | 77,6667 | 77,9085 | 78,0465 | 49 | 22 | 180 | 20 | 446,222 | 28,2971 |
| 11 | 68 | 67 | 75,5 | 74,6667 | 74 | 73,0726 | 73,1947 | 49 | 19 | 199 | 19,9 | 437,7 | 28,2615 |
| 12 | 63 | 67,0909 | 69,5 | 73 | 69 | 69,5218 | 69,4051 | 49 | 14 | 213 | 19,364 | 415,727 | 27,7125 |
| 13 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 14 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 15 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 16 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 17 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 18 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 19 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 20 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 21 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 22 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 23 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 24 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 25 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 26 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 27 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 28 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 29 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |

| | | | | | | | | | | | | | |
|------------|--|---------|--------|---------|-------------|-----------|------------|----------|--|--|--|--|--|
| 30 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 31 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 32 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 33 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 34 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 35 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 36 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 37 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 38 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 39 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 40 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 41 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 42 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 43 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 44 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 45 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 46 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 47 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| 48 | | 66,75 | 65,5 | 67,3333 | 64,6667 | 64,9565 | 64,7887 | 49 | | | | | |
| | | | | | | | | | | | | | |
| CFE | | 70,1476 | 3,5 | 6,6667 | 0,3333 | 22,795 | 21,6359 | 213 | | | | | |
| MAD | | 7,6209 | 5,45 | 7,4815 | 4,9667 | 6,5627 | 6,5443 | 19,3636 | | | | | |
| MSE | | 98,7791 | 51,075 | 70,321 | 47,1889 | 79,958 | 79,9256 | 415,7273 | | | | | |
| MAPE | | 10,6445 | 7,7742 | 10,6801 | 7,0473 | 9,3733 | 9,3501 | 27,7125 | | | | | |
| Trk.Signal | | 9,2047 | 0,6422 | 0,8911 | 0,0671 | 3,4734 | 3,3061 | 11 | | | | | |
| R-square | | | 0,839 | 0,6963 | 0,7577 | | | | | | | | |
| | | | m=2 | m=3 | m=2 | Alpha=0,7 | Alpha=0,84 | Alpha=0 | | | | | |
| | | | | | W(1)=1,0000 | F(0)=49 | F(0)=49 | Beta=49 | | | | | |
| | | | | | W(2)=2,0000 | | F'(0)=49 | F(0)=0 | | | | | |

PERAMALAN ENGSEL PIPA

| 12-19-2007 Month | Actual Data | Forecast by SA | Forecast by 2-MA | Forecast by 3-MA | Forecast by 2-WMA | Forecast by SES | Forecast by DES | Forecast by AES | Forecast Error | CFE | MAD | MSE | MAPE (%) |
|---------------------|----------------|-------------------|---------------------|---------------------|----------------------|--------------------|--------------------|--------------------|-------------------|-----|--------|---------|----------|
| 1 | 60 | | | | | | | | | | | | |
| 2 | 83 | 60 | | | | 60 | 60 | 60 | 23 | 23 | 23 | 529 | 27,7108 |
| 3 | 81 | 71,5 | 71,5 | | 75,3333 | 65,06 | 81,1968 | 60 | 21 | 44 | 22 | 485 | 26,8184 |
| 4 | 68 | 74,6667 | 82 | 74,6667 | 81,6667 | 68,5668 | 81,0493 | 60 | 8 | 52 | 17,333 | 344,667 | 21,8005 |
| 5 | 63 | 73 | 74,5 | 77,3333 | 72,3333 | 68,4421 | 69,0229 | 60 | 3 | 55 | 13,75 | 260,75 | 17,5408 |
| 6 | 73 | 71 | 65,5 | 70,6667 | 64,6667 | 67,2448 | 63,453 | 60 | 13 | 68 | 13,6 | 242,4 | 17,5943 |
| 7 | 75 | 71,3333 | 68 | 68 | 69,6667 | 68,511 | 72,2426 | 60 | 15 | 83 | 13,833 | 239,5 | 17,9953 |
| 8 | 82 | 71,8571 | 74 | 70,3333 | 74,3333 | 69,9386 | 74,7979 | 60 | 22 | 105 | 15 | 274,429 | 19,2573 |
| 9 | 88 | 73,125 | 78,5 | 76,6667 | 79,6667 | 72,5921 | 81,4394 | 60 | 28 | 133 | 16,625 | 338,125 | 20,8274 |
| 10 | 63 | 74,7778 | 85 | 81,6667 | 86 | 75,9818 | 87,4963 | 60 | 3 | 136 | 15,111 | 301,556 | 19,0423 |
| 11 | 71 | 73,6 | 75,5 | 77,6667 | 71,3333 | 73,1258 | 64,9302 | 60 | 11 | 147 | 14,7 | 283,5 | 18,6874 |
| 12 | 73 | 73,3636 | 67 | 74 | 68,3333 | 72,6581 | 70,488 | 60 | 13 | 160 | 14,546 | 273,091 | 18,6075 |
| 13 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 14 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 15 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 16 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 17 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 18 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 19 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 20 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 21 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 22 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 23 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 24 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 25 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 26 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 27 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 28 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 29 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |

| | | | | | | | | | | | | | |
|------------|--|----------|---------|----------|-------------|------------|------------|----------|--|--|--|--|--|
| 30 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 31 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 32 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 33 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 34 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 35 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 36 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 37 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 38 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 39 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 40 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 41 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 42 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 43 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 44 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 45 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 46 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 47 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| 48 | | 73,3333 | 72 | 69 | 72,3333 | 72,7333 | 72,812 | 60 | | | | | |
| | | | | | | | | | | | | | |
| CFE | | 31,7764 | -4,5 | -15 | -6,3333 | 57,8789 | 13,8837 | 160 | | | | | |
| MAD | | 8,5993 | 9,95 | 8,8519 | 8,6333 | 9,1011 | 9,2195 | 14,5455 | | | | | |
| MSE | | 113,7173 | 121,825 | 106,9753 | 108,3 | 131,2997 | 142,9526 | 273,0909 | | | | | |
| MAPE | | 11,352 | 14,0207 | 12,5089 | 12,2625 | 11,7895 | 12,7791 | 18,6075 | | | | | |
| Trk.Signal | | 3,6952 | -0,4523 | -1,6946 | -0,7336 | 6,3596 | 1,5059 | 11 | | | | | |
| R-square | | 0,3808 | 0,6237 | 0,3223 | 0,648 | 0,7343 | | | | | | | |
| | | | m=2 | m=3 | m=2 | Alpha=0,22 | Alpha=0,96 | Alpha=0 | | | | | |
| | | | | | W(1)=1,0000 | F(0)=60 | F(0)=60 | Beta=60 | | | | | |
| | | | | | W(2)=2,0000 | | F'(0)=60 | F(0)=0 | | | | | |

PERAMALAN SEKOP

| 12-19-2007 Month | Actual Data | Forecast by SA | Forecast by 2-MA | Forecast by 3-MA | Forecast by 2-WMA | Forecast by SES | Forecast by DES | Forecast by AES | Forecast Error | CFE | MAD | MSE | MAPE (%) |
|---------------------|----------------|-------------------|---------------------|---------------------|----------------------|--------------------|--------------------|--------------------|-------------------|-----|--------|----------|----------|
| 1 | 81 | | | | | | | | | | | | |
| 2 | 70 | 81 | | | | 81 | 81 | 81 | -11 | -11 | 11 | 121 | 15,7143 |
| 3 | 72 | 75,5 | 75,5 | | 73,6667 | 75,61 | 72,09 | 81 | -9 | -20 | 10 | 101 | 14,1071 |
| 4 | 68 | 74,3333 | 71 | 74,3333 | 71,3333 | 73,8411 | 71,928 | 81 | -13 | -33 | 11 | 123,6667 | 15,7773 |
| 5 | 71 | 72,75 | 70 | 70 | 69,3333 | 70,979 | 68,7447 | 81 | -10 | -43 | 10,75 | 117,75 | 15,3541 |
| 6 | 77 | 72,4 | 69,5 | 70,3333 | 70 | 70,9893 | 75,5397 | 81 | -4 | -47 | 9,4 | 97,4 | 13,3222 |
| 7 | 80 | 73,1667 | 74 | 72 | 75 | 73,9345 | 75,7905 | 81 | -1 | -48 | 8 | 81,3333 | 11,3102 |
| 8 | 73 | 74,1429 | 78,5 | 76 | 79 | 76,9066 | 79,2527 | 81 | -8 | -56 | 8 | 78,8571 | 11,26 |
| 9 | 68 | 74 | 76,5 | 76,6667 | 75,3333 | 74,9924 | 74,2226 | 81 | -13 | -69 | 8,625 | 90,125 | 12,2422 |
| 10 | 77 | 73,3333 | 70,5 | 73,6667 | 69,6667 | 71,5661 | 69,132 | 81 | -4 | -73 | 8,1111 | 81,8889 | 11,4592 |
| 11 | 81 | 73,7 | 72,5 | 72,6667 | 74 | 74,2287 | 75,4542 | 81 | 0 | -73 | 7,3 | 73,7 | 10,3133 |
| 12 | 69 | 74,3636 | 79 | 75,3333 | 79,6667 | 77,5466 | 80,0095 | 81 | -12 | -85 | 7,7273 | 80,0909 | 10,9567 |
| 13 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 14 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 15 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 16 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 17 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 18 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 19 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 20 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 21 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 22 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 23 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 24 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 25 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 26 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 27 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 28 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 29 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |

| | | | | | | | | | | | | | |
|------------|--|----------|---------|---------|-------------|------------|-----------|---------|--|--|--|--|--|
| 30 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 31 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 32 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 33 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 34 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 35 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 36 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 37 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 38 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 39 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 40 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 41 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 42 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 43 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 44 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 45 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 46 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 47 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| 48 | | 73,9167 | 75 | 75,6667 | 73 | 73,3588 | 71,1374 | 81 | | | | | |
| | | | | | | | | | | | | | |
| CFE | | -12,6898 | -1 | 3 | -1 | -15,5943 | -12,1639 | -85 | | | | | |
| MAD | | 5,2263 | 6 | 5,7407 | 5,7 | 5,8363 | 5,8947 | 7,7273 | | | | | |
| MSE | | 34,2807 | 43,15 | 39,3704 | 39,7 | 41,2407 | 44,788 | 80,0909 | | | | | |
| MAPE | | 7,1642 | 8,1384 | 7,7812 | 7,7533 | 8,0157 | 8,1074 | 10,9567 | | | | | |
| Trk.Signal | | -2,428 | -0,1667 | 0,5226 | -0,1754 | -2,672 | -2,0635 | -11 | | | | | |
| R-square | | 0,31 | 0,5306 | 0,2222 | 0,5785 | 0,5115 | 0,8974 | | | | | | |
| | | | m=2 | m=3 | m=2 | Alpha=0,49 | Alpha=0,9 | Alpha=0 | | | | | |
| | | | | | W(1)=1,0000 | F(0)=81 | F(0)=81 | Beta=81 | | | | | |
| | | | | | W(2)=2,0000 | | F'(0)=81 | F(0)=0 | | | | | |

PERAMALAN EMBER HITAM

| 12-19-2007 Month | Actual Data | Forecast by SA | Forecast by 2-MA | Forecast by 3-MA | Forecast by 2-WMA | Forecast by SES | Forecast by DES | Forecast by AES | Forecast Error | CFE | MAD | MSE | MAPE (%) |
|---------------------|----------------|-------------------|---------------------|---------------------|----------------------|--------------------|--------------------|--------------------|-------------------|-----|--------|--------|----------|
| 1 | 69 | | | | | | | | | | | | |
| 2 | 73 | 69 | | | | 69 | 69 | 69 | 4 | 4 | 4 | 16 | 5,4795 |
| 3 | 59 | 71 | 71 | | 71,6667 | 69 | 69 | 69 | -10 | -6 | 7 | 58 | 11,2143 |
| 4 | 78 | 67 | 66 | 67 | 63,6667 | 69 | 69 | 69 | 9 | 3 | 7,6667 | 65,667 | 11,3224 |
| 5 | 67 | 69,75 | 68,5 | 70 | 71,6667 | 69 | 69 | 69 | -2 | 1 | 6,25 | 50,25 | 9,238 |
| 6 | 63 | 69,2 | 72,5 | 68 | 70,6667 | 69 | 69 | 69 | -6 | -5 | 6,2 | 47,4 | 9,2952 |
| 7 | 74 | 68,1667 | 65 | 69,3333 | 64,3333 | 69 | 69 | 69 | 5 | 0 | 6 | 43,667 | 8,8721 |
| 8 | 60 | 69 | 68,5 | 68 | 70,3333 | 69 | 69 | 69 | -9 | -9 | 6,4286 | 49 | 9,7475 |
| 9 | 59 | 67,875 | 67 | 65,6667 | 64,6667 | 69 | 69 | 69 | -10 | -19 | 6,875 | 55,375 | 10,6477 |
| 10 | 68 | 66,8889 | 59,5 | 64,3333 | 59,3333 | 69 | 69 | 69 | -1 | -20 | 6,2222 | 49,333 | 9,628 |
| 11 | 72 | 67 | 63,5 | 62,3333 | 65 | 69 | 69 | 69 | 3 | -17 | 5,9 | 45,3 | 9,0819 |
| 12 | 76 | 67,4545 | 70 | 66,3333 | 70,6667 | 69 | 69 | 69 | 7 | -10 | 6 | 45,636 | 9,0936 |
| 13 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 14 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 15 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 16 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 17 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 18 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 19 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 20 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 21 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 22 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 23 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 24 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 25 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 26 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 27 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 28 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 29 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |

| | | | | | | | | | | | | | |
|------------|--|---------|--------|---------|-------------|---------|----------|---------|--|--|--|--|--|
| 30 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 31 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 32 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 33 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 34 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 35 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 36 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 37 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 38 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 39 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 40 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 41 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 42 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 43 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 44 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 45 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 46 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 47 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| 48 | | 68,1667 | 74 | 72 | 74,6667 | 69 | 69 | 69 | | | | | |
| | | | | | | | | | | | | | |
| CFE | | -3,3351 | 4,5 | 16 | 4 | -10 | -10 | -10 | | | | | |
| MAD | | 6,7559 | 8,35 | 6,8148 | 8,6 | 6 | 6 | 6 | | | | | |
| MSE | | 56,3687 | 77,825 | 53,9506 | 83,1333 | 45,6364 | 45,6364 | 45,6364 | | | | | |
| MAPE | | 10,1468 | 12,513 | 9,8881 | 12,8354 | 9,0936 | 9,0936 | 9,0936 | | | | | |
| Trk.Signal | | -0,4937 | 0,5389 | 2,3478 | 0,4651 | -1,6667 | -1,6667 | -1,6667 | | | | | |
| R-square | | 0,0373 | 0,2896 | 0,1966 | 0,3628 | 0,0184 | 0,0184 | 0,0184 | | | | | |
| | | | m=2 | m=3 | m=2 | Alpha=0 | Alpha=0 | Alpha=0 | | | | | |
| | | | | | W(1)=1,0000 | F(0)=69 | F(0)=69 | Beta=69 | | | | | |
| | | | | | W(2)=2,0000 | | F'(0)=69 | F(0)=0 | | | | | |

PERAMALAN TRIPLEX

| 12-19-2007 Month | Actual Data | Forecast by SA | Forecast by 2-MA | Forecast by 3-MA | Forecast by 2-WMA | Forecast by SES | Forecast by DES | Forecast by AES | Forecast Error | CFE | MAD | MSE | MAPE (%) |
|---------------------|----------------|-------------------|---------------------|---------------------|----------------------|--------------------|--------------------|--------------------|-------------------|-----|--------|---------|----------|
| 1 | 46 | | | | | | | | | | | | |
| 2 | 71 | 46 | | | | 46 | 46 | 46 | 25 | 25 | 25 | 625 | 35,2113 |
| 3 | 59 | 58,5 | 58,5 | | 62,6667 | 59 | 60,44 | 46 | 13 | 38 | 19 | 397 | 28,6226 |
| 4 | 54 | 58,6667 | 65 | 58,6667 | 63 | 59 | 60,44 | 46 | 8 | 46 | 15,333 | 286 | 24,02 |
| 5 | 51 | 57,5 | 56,5 | 61,3333 | 55,6667 | 56,4 | 56,7203 | 46 | 5 | 51 | 12,75 | 220,75 | 20,466 |
| 6 | 50 | 56,2 | 52,5 | 54,6667 | 52 | 53,592 | 53,202 | 46 | 4 | 55 | 11 | 179,8 | 17,9728 |
| 7 | 49 | 55,1667 | 50,5 | 51,6667 | 50,3333 | 51,7242 | 51,1499 | 46 | 3 | 58 | 9,6667 | 151,333 | 15,9977 |
| 8 | 48 | 54,2857 | 49,5 | 50 | 49,3333 | 50,3076 | 49,7899 | 46 | 2 | 60 | 8,5714 | 130,286 | 14,3076 |
| 9 | 62 | 53,5 | 48,5 | 49 | 48,3333 | 49,1076 | 48,6777 | 46 | 16 | 76 | 9,5 | 146 | 15,7449 |
| 10 | 67 | 54,4444 | 55 | 53 | 57,3333 | 55,8117 | 56,3086 | 46 | 21 | 97 | 10,778 | 178,778 | 17,4781 |
| 11 | 63 | 55,7 | 64,5 | 59 | 65,3333 | 61,6296 | 62,9235 | 46 | 17 | 114 | 11,4 | 189,8 | 18,4287 |
| 12 | 55 | 56,3636 | 65 | 64 | 64,3333 | 62,3422 | 63,3487 | 46 | 9 | 123 | 11,182 | 179,909 | 18,241 |
| 13 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 14 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 15 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 16 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 17 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 18 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 19 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 20 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 21 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 22 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 23 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 24 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 25 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 26 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 27 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 28 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 29 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |

| | | | | | | | | | | | | | |
|------------|--|---------|---------|---------|-------------|------------|------------|----------|--|--|--|--|--|
| 30 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 31 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 32 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 33 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 34 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 35 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 36 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 37 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 38 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 39 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 40 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 41 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 42 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 43 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 44 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 45 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 46 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 47 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| 48 | | 56,25 | 59 | 61,6667 | 57,6667 | 58,5243 | 58,551 | 46 | | | | | |
| | | | | | | | | | | | | | |
| CFE | | 22,6729 | -7,5 | -2,3333 | -10,3333 | 24,0851 | 19,9995 | 123 | | | | | |
| MAD | | 7,7307 | 5,95 | 7,1481 | 5,7 | 6,9834 | 7,1074 | 11,1818 | | | | | |
| MSE | | 99,1179 | 59,075 | 69,2716 | 49,6556 | 95,6351 | 98,2584 | 179,9091 | | | | | |
| MAPE | | 12,9129 | 10,3436 | 12,4913 | 9,8675 | 11,4207 | 11,6418 | 18,241 | | | | | |
| Trk.Signal | | 2,9328 | -1,2605 | -0,3264 | -1,8129 | 3,4489 | 2,8139 | 11 | | | | | |
| R-square | | 0,2757 | 0,979 | 0,5832 | | 0,5561 | 0,6584 | | | | | | |
| | | | m=2 | m=3 | m=2 | Alpha=0,52 | Alpha=0,76 | Alpha=0 | | | | | |
| | | | | | W(1)=1,0000 | F(0)=46 | F(0)=46 | Beta=46 | | | | | |
| | | | | | W(2)=2,0000 | | F'(0)=46 | F(0)=0 | | | | | |

PERAMALAN SENG

| 12-19-2007 Month | Actual Data | Forecast by SA | Forecast by 2-MA | Forecast by 3-MA | Forecast by 2-WMA | Forecast by SES | Forecast by DES | Forecast by AES | Forecast Error | CFE | MAD | MSE | MAPE (%) |
|---------------------|----------------|-------------------|---------------------|---------------------|----------------------|--------------------|--------------------|--------------------|-------------------|-----|-------|---------|----------|
| 1 | 59 | | | | | | | | | | | | |
| 2 | 59 | 59 | | | | 59 | 59 | 59 | 0 | 0 | 0 | 0 | 0 |
| 3 | 61 | 59 | 59 | | 59 | 59 | 59 | 59 | 2 | 2 | 1 | 2 | 1,6393 |
| 4 | 44 | 59,6667 | 60 | 59,6667 | 60,3333 | 59,2 | 59,125 | 59 | -15 | -13 | 5,667 | 76,3333 | 12,4565 |
| 5 | 69 | 55,75 | 52,5 | 54,6667 | 49,6667 | 57,68 | 58,25 | 59 | 10 | -3 | 6,75 | 82,25 | 12,9656 |
| 6 | 62 | 58,4 | 56,5 | 58 | 60,6667 | 58,812 | 58,4297 | 59 | 3 | 0 | 6 | 67,6 | 11,3402 |
| 7 | 59 | 59 | 65,5 | 58,3333 | 64,3333 | 59,1308 | 58,7539 | 59 | 0 | 0 | 5 | 56,3333 | 9,4502 |
| 8 | 51 | 59 | 60,5 | 63,3333 | 60 | 59,1177 | 58,9517 | 59 | -8 | -8 | 5,429 | 57,4286 | 10,341 |
| 9 | 53 | 58 | 55 | 57,3333 | 53,6667 | 58,3059 | 58,5659 | 59 | -6 | -14 | 5,5 | 54,75 | 10,4635 |
| 10 | 48 | 57,4444 | 52 | 54,3333 | 52,3333 | 57,7754 | 58,0011 | 59 | -11 | -25 | 6,111 | 62,1111 | 11,8472 |
| 11 | 47 | 56,5 | 50,5 | 50,6667 | 49,6667 | 56,7978 | 57,0583 | 59 | -12 | -37 | 6,7 | 70,3 | 13,2157 |
| 12 | 56 | 55,6364 | 47,5 | 49,3333 | 47,3333 | 55,818 | 55,8993 | 59 | -3 | -40 | 6,364 | 64,7273 | 12,5013 |
| 13 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 14 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 15 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 16 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 17 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 18 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 19 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 20 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 21 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 22 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 23 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 24 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 25 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 26 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 27 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 28 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 29 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |

| | | | | | | | | | | | | | |
|------------|--|----------|---------|----------|-------------|-----------|------------|---------|--|--|--|--|--|
| 30 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 31 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 32 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 33 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 34 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 35 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 36 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 37 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 38 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 39 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 40 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 41 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 42 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 43 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 44 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 45 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 46 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 47 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| 48 | | 55,6667 | 51,5 | 50,3333 | 53 | 55,8362 | 55,2537 | 59 | | | | | |
| | | | | | | | | | | | | | |
| CFE | | -28,3975 | -9 | -16,6667 | -7 | -31,6377 | -32,0348 | -40 | | | | | |
| MAD | | 6,075 | 7,4 | 7,5556 | 6,9667 | 5,9107 | 5,9426 | 6,3636 | | | | | |
| MSE | | 64,2315 | 79,95 | 81,8025 | 85,7222 | 59,9092 | 59,6859 | 64,7273 | | | | | |
| MAPE | | 11,7775 | 13,6803 | 14,3578 | 12,8692 | 11,5508 | 11,6289 | 12,5013 | | | | | |
| Trk.Signal | | -4,6745 | -1,2162 | -2,2059 | -1,0048 | -5,3526 | -5,3907 | -6,2857 | | | | | |
| R-square | | 0,1649 | 0,4991 | 0,3641 | 0,5674 | 0,1826 | 0,1819 | 0,2567 | | | | | |
| | | | m=2 | m=3 | m=2 | Alpha=0,1 | Alpha=0,25 | Alpha=0 | | | | | |
| | | | | | W(1)=1,0000 | F(0)=59 | F(0)=59 | Beta=59 | | | | | |
| | | | | | W(2)=2,0000 | | F'(0)=59 | F(0)=0 | | | | | |

PERAMALAN PIPA PUTIH GALVANIS

| 12-19-2007 Month | Actual Data | Forecast by SA | Forecast by 2-MA | Forecast by 3-MA | Forecast by 2-WMA | Forecast by SES | Forecast by DES | Forecast by AES | Forecast Error | CFE | MAD | MSE | MAPE (%) |
|---------------------|----------------|-------------------|---------------------|---------------------|----------------------|--------------------|--------------------|--------------------|-------------------|-----|-------|---------|----------|
| 1 | 53 | | | | | | | | | | | | |
| 2 | 60 | 53 | | | | 53 | 53 | 53 | 7 | 7 | 7 | 49 | 11,6667 |
| 3 | 67 | 56,5 | 56,5 | | 57,6667 | 55,24 | 55,0412 | 53 | 14 | 21 | 10,5 | 122,5 | 16,2811 |
| 4 | 59 | 60 | 63,5 | 60 | 64,6667 | 59,0032 | 58,9603 | 53 | 6 | 27 | 9 | 93,6667 | 14,2439 |
| 5 | 45 | 59,75 | 63 | 62 | 61,6667 | 59,0022 | 59,8012 | 53 | -8 | 19 | 8,75 | 86,25 | 15,1274 |
| 6 | 58 | 56,8 | 52 | 57 | 49,6667 | 54,5215 | 55,6631 | 53 | 5 | 24 | 8 | 74 | 13,826 |
| 7 | 50 | 57 | 51,5 | 54 | 53,6667 | 55,6346 | 55,4689 | 53 | -3 | 21 | 7,167 | 63,167 | 12,5217 |
| 8 | 61 | 56 | 54 | 51 | 52,6667 | 53,8315 | 53,8331 | 53 | 8 | 29 | 7,286 | 63,286 | 12,6064 |
| 9 | 66 | 56,625 | 55,5 | 56,3333 | 57,3333 | 56,1254 | 55,5768 | 53 | 13 | 42 | 8 | 76,5 | 13,4927 |
| 10 | 59 | 57,6667 | 63,5 | 59 | 64,3333 | 59,2853 | 58,9852 | 53 | 6 | 48 | 7,778 | 72 | 13,1235 |
| 11 | 63 | 57,8 | 62,5 | 62 | 61,3333 | 59,194 | 59,7107 | 53 | 10 | 58 | 8 | 74,8 | 13,3984 |
| 12 | 67 | 58,2727 | 61 | 62,6667 | 61,6667 | 60,4119 | 60,8234 | 53 | 14 | 72 | 8,546 | 85,818 | 14,08 |
| 13 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 14 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 15 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 16 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 17 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 18 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 19 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 20 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 21 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 22 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 23 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 24 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 25 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 26 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 27 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 28 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 29 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |

| | | | | | | | | | | | | | |
|------------|--|---------|---------|---------|-------------|------------|------------|---------|--|--|--|--|--|
| 30 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 31 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 32 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 33 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 34 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 35 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 36 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 37 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 38 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 39 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 40 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 41 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 42 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 43 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 44 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 45 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 46 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 47 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| 48 | | 59 | 65 | 63 | 65,6667 | 62,5201 | 62,8599 | 53 | | | | | |
| | | | | | | | | | | | | | |
| CFE | | 25,5856 | 12 | 4 | 10,3333 | 29,7503 | 28,1362 | 72 | | | | | |
| MAD | | 6,4623 | 6,9 | 5,3333 | 7,3 | 6,3274 | 6,2433 | 8,5455 | | | | | |
| MSE | | 58,7387 | 70,85 | 57,8025 | 68,4111 | 57,6428 | 59,5851 | 85,8182 | | | | | |
| MAPE | | 11,2564 | 12,1404 | 9,8102 | 12,8711 | 10,9707 | 10,8589 | 14,08 | | | | | |
| Trk.Signal | | 3,9592 | 1,7391 | 0,75 | 1,4155 | 4,7019 | 4,5066 | 8,4255 | | | | | |
| R-square | | 0,2024 | 0,4889 | 0,3144 | 0,5255 | 0,3126 | 0,308 | 0,9969 | | | | | |
| | | | m=2 | m=3 | m=2 | Alpha=0,32 | Alpha=0,54 | Alpha=0 | | | | | |
| | | | | | W(1)=1,0000 | F(0)=53 | F(0)=53 | Beta=53 | | | | | |
| | | | | | W(2)=2,0000 | | F'(0)=53 | F(0)=0 | | | | | |

PERAMALAN KAWAT POLOS

| 12-19-2007 Month | Actual Data | Forecast by SA | Forecast by 2-MA | Forecast by 3-MA | Forecast by 2-WMA | Forecast by SES | Forecast by DES | Forecast by AES | Forecast Error | CFE | MAD | MSE | MAPE (%) |
|---------------------|----------------|-------------------|---------------------|---------------------|----------------------|--------------------|--------------------|--------------------|-------------------|-----|--------|---------|----------|
| 1 | 59 | | | | | | | | | | | | |
| 2 | 44 | 59 | | | | 59 | 59 | 59 | -15 | -15 | 15 | 225 | 34,0909 |
| 3 | 43 | 51,5 | 51,5 | | 49 | 54,05 | 54,944 | 59 | -16 | -31 | 15,5 | 240,5 | 35,6501 |
| 4 | 40 | 48,6667 | 43,5 | 48,6667 | 43,3333 | 50,4035 | 50,7798 | 59 | -19 | -50 | 16,667 | 280,667 | 39,6001 |
| 5 | 68 | 46,5 | 41,5 | 42,3333 | 41 | 46,9703 | 46,9056 | 59 | 9 | -41 | 14,75 | 230,75 | 33,0089 |
| 6 | 51 | 50,8 | 54 | 50,3333 | 58,6667 | 53,9101 | 51,7169 | 59 | -8 | -49 | 13,4 | 197,4 | 29,5444 |
| 7 | 59 | 50,8333 | 59,5 | 53 | 56,6667 | 52,9498 | 52,6315 | 59 | 0 | -49 | 11,167 | 164,5 | 24,6203 |
| 8 | 46 | 52 | 55 | 59,3333 | 56,3333 | 54,9464 | 54,5643 | 59 | -13 | -62 | 11,429 | 165,143 | 25,1404 |
| 9 | 57 | 51,25 | 52,5 | 52 | 50,3333 | 51,9941 | 52,6938 | 59 | -2 | -64 | 10,25 | 145 | 22,4364 |
| 10 | 44 | 51,8889 | 51,5 | 54 | 53,3333 | 53,646 | 53,4273 | 59 | -15 | -79 | 10,778 | 153,889 | 23,7314 |
| 11 | 49 | 51,1 | 50,5 | 49 | 48,3333 | 50,4628 | 51,0471 | 59 | -10 | -89 | 10,7 | 148,5 | 23,399 |
| 12 | 50 | 50,9091 | 46,5 | 50 | 47,3333 | 49,9801 | 49,9452 | 59 | -9 | -98 | 10,546 | 142,364 | 22,9082 |
| 13 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 14 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 15 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 16 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 17 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 18 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 19 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 20 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 21 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 22 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 23 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 24 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 25 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 26 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 27 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 28 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 29 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |

| | | | | | | | | | | | | | |
|------------|--|---------|---------|----------|-------------|------------|------------|----------|--|--|--|--|--|
| 30 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 31 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 32 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 33 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 34 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 35 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 36 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 37 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 38 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 39 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 40 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 41 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 42 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 43 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 44 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 45 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 46 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 47 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| 48 | | 50,8333 | 49,5 | 47,6667 | 49,6667 | 49,9867 | 49,7061 | 59 | | | | | |
| | | | | | | | | | | | | | |
| CFE | | -13,448 | 1 | 5,3333 | 2,6667 | -27,3131 | -26,6555 | -98 | | | | | |
| MAD | | 7,6983 | 6,8 | 7,7037 | 7,6 | 8,3204 | 8,2094 | 10,5455 | | | | | |
| MSE | | 94,3526 | 96,8 | 119,2346 | 108,6222 | 103,9035 | 104,9881 | 142,3636 | | | | | |
| MAPE | | 15,3219 | 12,8784 | 14,597 | 14,3046 | 16,8966 | 16,7204 | 22,9082 | | | | | |
| Trk.Signal | | -1,7469 | 0,1471 | 0,6923 | 0,3509 | -3,2827 | -3,247 | -9,2931 | | | | | |
| R-square | | 0,1548 | 0,4071 | 0,2944 | 0,4693 | 0,2419 | 0,2331 | | | | | | |
| | | | m=2 | m=3 | m=2 | Alpha=0,33 | Alpha=0,52 | Alpha=0 | | | | | |
| | | | | | W(1)=1,0000 | F(0)=59 | F(0)=59 | Beta=59 | | | | | |
| | | | | | W(2)=2,0000 | | F'(0)=59 | F(0)=0 | | | | | |

LAMPIRAN 6

PERHITUNGAN ASPEK FINANSIAL

BIAYA DEPRESIASI

| No | Keterangan | Umur Hidup | Harga Beli | Nilai Sisa | Jumlah | Total Harga | SLD / tahun | SLD / bulan |
|----------------------------------|---------------------|------------|-------------------|-------------------|--------|-------------------|------------------|------------------|
| 1. Bangunan | | | | | | | | |
| 1 | Bangunan | 20 | Rp 650.000.000,00 | Rp 325.000.000,00 | 1 | Rp 650.000.000,00 | Rp 16.250.000,00 | Rp 1.354.166,67 |
| Total | | | | | | Rp 650.000.000,00 | Rp 16.250.000,00 | Rp 1.354.166,67 |
| 2. Perlengkapan Kantor | | | | | | | | |
| 1 | Meja | 5 | Rp 200.000 | Rp 100.000 | 1 | Rp 200.000 | Rp 20.000 | Rp 1.667 |
| 2 | Kursi | 5 | Rp 30.000 | Rp 15.000 | 4 | Rp 120.000 | Rp 3.000 | Rp 250 |
| 3 | Lemari | 5 | Rp 200.000 | Rp 100.000 | 1 | Rp 200.000 | Rp 20.000 | Rp 1.667 |
| 4 | Telepon | 5 | Rp 150.000 | Rp 75.000 | 2 | Rp 300.000 | Rp 15.000 | Rp 1.250 |
| 5 | Gunting | 5 | Rp 3.500 | Rp 1.750 | 2 | Rp 7.000 | Rp 350 | Rp 29 |
| 6 | Stapler | 5 | Rp 4.000 | Rp 2.000 | 5 | Rp 20.000 | Rp 400 | Rp 33 |
| Total | | | | | | Rp 847.000 | Rp 58.750 | Rp 4.896 |
| 3. Perlengkapan Lain-lain | | | | | | | | |
| 1 | Lampu toilet | 5 | Rp 28.000 | Rp 14.000 | 2 | Rp 56.000 | Rp 11.200 | Rp 933 |
| 2 | Lampu besar | 5 | Rp 30.000 | Rp 15.000 | 4 | Rp 120.000 | Rp 24.000 | Rp 2.000 |
| 3 | Lampu kecil | 5 | Rp 20.000 | Rp 10.000 | 4 | Rp 80.000 | Rp 16.000 | Rp 1.333 |
| 4 | Sabun | 5 | Rp 2.000 | Rp - | 3 | Rp 6.000 | Rp - | - |
| 5 | Gayung | 5 | Rp 10.000 | Rp - | 2 | Rp 20.000 | Rp 4.000 | Rp 333 |
| 6 | Cairan pembersih WC | 5 | Rp 20.000 | Rp - | 3 | Rp 60.000 | Rp - | Rp - |
| 7 | Alat pembersih WC | 5 | Rp 10.000 | Rp 5.000 | 2 | Rp 20.000 | Rp 4.000 | Rp 333 |
| 8 | Sapu | 5 | Rp 30.000 | Rp - | 2 | Rp 60.000 | Rp - | - |
| 9 | Tempat Sampah | 5 | Rp 10.000 | Rp - | 2 | Rp 20.000 | Rp - | - |
| 10 | Keset | 5 | Rp 25.000 | Rp - | 2 | Rp 50.000 | Rp - | - |
| 11 | Kotak P3K | 5 | Rp 50.000 | Rp 25.000 | 1 | Rp 50.000 | Rp 10.000 | Rp 833 |
| 12 | Rak | 5 | Rp 150.000 | Rp 75.000 | 4 | Rp 600.000 | Rp 120.000 | Rp 10.000 |
| 13 | Lemari kaca | 5 | Rp 250.000 | Rp 125.000 | 3 | Rp 750.000 | Rp 150.000 | Rp 12.500 |
| 14 | Kipas Angin | 5 | Rp 220.000 | Rp 110.000 | 2 | Rp 440.000 | Rp 88.000 | Rp 7.333 |
| 15 | Jam | 5 | Rp 35.000 | Rp 17.500 | 2 | Rp 70.000 | Rp 14.000 | Rp 1.167 |
| 16 | Despenser | 5 | Rp 300.000 | Rp 150.000 | 1 | Rp 300.000 | Rp 60.000 | Rp 5.000 |
| 17 | Galon | 5 | Rp 52.500 | Rp 26.250 | 2 | Rp 105.000 | Rp 21.000 | Rp 1.750 |
| Total | | | | | | Rp 2.807.000 | Rp 522.200 | Rp 43.517 |
| | | | | | | | Total | Rp 16.830.950,00 |

| TOKO SUMBER LOGAM | | | | | |
|--------------------------------------|----------------|----------------|----------------|------------------|------------------|
| LAPORAN HARGA POKOK PENJUALAN | | | | | |
| Periode 2008 sampai 2013 | | | | | |
| | 1 | 2 | 3 | 4 | 5 |
| Bahan Langsung | | | | | |
| Persediaan Awal | - | - | - | - | - |
| Pembelian | Rp 405,588,000 | Rp 555,061,875 | Rp 759,595,729 | Rp 1,039,483,082 | Rp 1,422,638,186 |
| Bahan Tersedia | Rp 405,588,000 | Rp 555,061,875 | Rp 759,595,729 | Rp 1,039,483,082 | Rp 1,422,638,186 |
| Persediaan Akhir | - | - | - | - | - |
| Bahan Terpakai | Rp 405,588,000 | Rp 555,061,875 | Rp 759,595,729 | Rp 1,039,483,082 | Rp 1,422,638,186 |
| Total Bahan Langsung | Rp 405,588,000 | Rp 555,061,875 | Rp 759,595,729 | Rp 1,039,483,082 | Rp 1,422,638,186 |
| Tenaga Kerja Langsung | Rp 31,200,000 | Rp 33,800,000 | Rp 33,800,000 | Rp 33,800,000 | Rp 33,800,000 |
| Overhead Pabrik | | | | | |
| Depresiasi | Rp 16,508,950 | Rp 16,508,950 | Rp 16,508,950 | Rp 16,508,950 | Rp 16,508,950 |
| Alat-alat kantor | Rp 63,480,000 | Rp 63,480,000 | Rp 63,480,000 | Rp 63,480,000 | Rp 63,480,000 |
| Telepon | Rp 6,600,000 | Rp 6,600,000 | Rp 6,600,000 | Rp 6,600,000 | Rp 6,600,000 |
| Listrik | Rp 4,800,000 | Rp 4,800,000 | Rp 4,800,000 | Rp 4,800,000 | Rp 4,800,000 |
| Air | Rp 3,600,000 | Rp 3,600,000 | Rp 3,600,000 | Rp 3,600,000 | Rp 3,600,000 |
| Total Overhead Pabrik | Rp 94,988,950 | Rp 94,988,950 | Rp 94,988,950 | 94988950 | 94988950 |
| Barang dalam proses | | | | | |
| Persediaan Awal | - | - | - | - | - |
| Persediaan Akhir | - | - | - | - | - |
| Total biaya pembuatan barang | Rp 531,776,950 | Rp 683,850,825 | Rp 888,384,679 | Rp 1,168,272,032 | Rp 1,551,427,136 |
| Barang Jadi | | | | | |
| Persediaan Awal | - | - | - | - | - |
| Persediaan Akhir | - | - | - | - | - |
| Harga Pokok Penjualan | Rp 531,776,950 | Rp 683,850,825 | Rp 888,384,679 | Rp 1,168,272,032 | Rp 1,551,427,136 |

| Laporan Laba Rugi | | | | | | |
|----------------------------------|---------|-------------------------------|---------|-------------------------------|---------|-------------------------------|
| Periode 2008 sampai 20013 | | | | | | |
| Keterangan | Tahun 1 | | Tahun 2 | | Tahun 3 | |
| Hasil Penjualan | | Rp 548,140,800 | | Rp 750,158,685 | | Rp 1,026,590,625 |
| LABA KOTOR | | Rp 548,140,800 | | Rp 750,158,685 | | Rp 1,026,590,625 |
| Harga Beli Barang | Rp | 405,588,000 | Rp | 555,061,875 | Rp | 759,595,729 |
| Biaya Tenaga Kerja | Rp | 31,200,000 | Rp | 33,800,000 | Rp | 33,800,000 |
| Biaya per tahun | Rp | 24,093,000 | Rp | 24,093,000 | Rp | 24,093,000 |
| Biaya Operasional | Rp | 18,000,000 | Rp | 18,000,000 | Rp | 18,000,000 |
| Biaya Depresiasi | Rp | 16,508,950 | Rp | 16,508,950 | Rp | 16,508,950 |
| Biaya Energi | Rp | 15,000,000 + Rp 510,389,950 - | Rp | 15,000,000 + Rp 662,463,825 - | Rp | 15,000,000 + Rp 866,997,679 - |
| LABA DARI OPERASI | | Rp 37,750,850 | | Rp 87,694,860 | | Rp 159,592,946 |
| Penerimaan/Pengeluaran | | | | | | |
| Penerimaan lain-lain | Rp | - | Rp | - | Rp | - |
| Pengeluaran lain-lain | Rp | - + Rp - - | Rp | - + Rp - - | Rp | - + Rp - - |
| LABA SEBELUM PAJAK | | Rp 37,750,850 | | Rp 87,694,860 | | Rp 159,592,946 |
| Bunga | | | | | | |
| Pajak Penghasilan | | | | | | |
| a. 10% dari 50jt pertama | Rp | 5,000,000 | Rp | 5,000,000 | Rp | 5,000,000 |
| b. 15% dari 50jt kedua | Rp | 7,500,000 | Rp | 7,500,000 | Rp | 7,500,000 |
| c. 30% dari (laba kotor - 100jt) | Rp | - | Rp | - | Rp | 17,877,884 |
| LABA BERSIH SETELAH PAJAK | | Rp 25,250,850 | | Rp 75,194,860 | | Rp 129,215,062 |

| Laporan Rugi Laba | | | | |
|----------------------------------|------------------|-----------------------------|------------------|-----------------------------|
| Periode 2008 sampai 20013 | | | | |
| Keterangan | Tahun 4 | | Tahun 5 | |
| Hasil Penjualan | | <u>Rp 1,404,828,739</u> | | <u>Rp 1,922,671,202</u> |
| LABA KOTOR | | Rp 1,404,828,739 | | Rp 1,922,671,202 |
| Harga Beli Barang | Rp 1,039,483,082 | | Rp 1,422,638,186 | |
| Biaya Tenaga Kerja | Rp 33,800,000 | | Rp 33,800,000 | |
| Biaya per tahun | Rp 24,093,000 | | Rp 24,093,000 | |
| Biaya Operasional | Rp 18,000,000 | | Rp 18,000,000 | |
| Biaya Depresiasi | Rp 16,508,950 | | Rp 16,508,950 | |
| Biaya Energi | Rp 15,000,000 | + <u>Rp 1,146,885,032</u> - | Rp 15,000,000 | + <u>Rp 1,530,040,136</u> - |
| LABA DARI OPERASI | | <u>Rp 257,943,707</u> | | <u>Rp 392,631,066</u> |
| Penerimaan/Pengeluaran | | | | |
| Penerimaan lain-lain | Rp - | | Rp - | |
| Pengeluaran lain-lain | Rp - | + <u>Rp -</u> - | Rp - | + <u>Rp -</u> - |
| LABA SEBELUM PAJAK | | <u>Rp 257,943,707</u> | | <u>Rp 392,631,066</u> |
| Bunga | | | | |
| Pajak Penghasilan | | | | |
| a. 10% dari 50jt pertama | | Rp 5,000,000 | | Rp 5,000,000 |
| b. 15% dari 50jt kedua | | Rp 7,500,000 | | Rp 7,500,000 |
| c. 30% dari (laba kotor - 100jt) | | Rp 47,383,112 | | Rp 87,789,320 |
| LABA BERSIH SETELAH PAJAK | | Rp 198,060,595 | | Rp 292,341,746 |

| CASH FLOW | | | | |
|------------------------------|---------------------|---------------------|---------------------|---------------------|
| | Tahun Ke - 0 | Tahun Ke - 1 | Tahun Ke - 2 | Tahun Ke - 3 |
| Saldo Awal Kas | Rp - | Rp 547,311,200 | Rp 589,071,000 | Rp 680,774,810 |
| PENERIMAAN KAS | | | | |
| Modal Sendiri | Rp 1,555,492,200 | Rp - | Rp - | Rp - |
| Modal dari pinjaman Bank | Rp - | Rp - | Rp - | Rp - |
| Penjualan | Rp - | Rp 548,140,800 | Rp 750,158,685 | Rp 1,026,590,625 |
| Total Penerimaan Kas | Rp 1,555,492,200 | Rp 1,095,452,000 | Rp 1,339,229,685 | Rp 1,707,365,435 |
| Pengeluaran Kas | | | | |
| Investasi | Rp 1,001,681,000 | Rp - | Rp - | Rp - |
| Instalasi & Surat Izin | Rp 6,500,000 | Rp - | Rp - | Rp - |
| Harga Beli Barang | Rp - | Rp 405,588,000 | Rp 555,061,875 | Rp 759,595,729 |
| Biaya Tenaga Kerja | Rp - | Rp 31,200,000 | Rp 33,800,000 | Rp 33,800,000 |
| Biaya per tahun | Rp - | Rp 24,093,000 | Rp 24,093,000 | Rp 24,093,000 |
| Biaya Operasional | Rp - | Rp 18,000,000 | Rp 18,000,000 | Rp 18,000,000 |
| Biaya Energi | Rp - | Rp 15,000,000 | Rp 15,000,000 | Rp 15,000,000 |
| PPH | Rp - | Rp 12,500,000 | Rp 12,500,000 | Rp 30,377,884 |
| Total Pengeluaran Kas | Rp 1,008,181,000 | Rp 506,381,000 | Rp 658,454,875 | Rp 880,866,613 |
| Saldo Akhir | Rp 547,311,200 | Rp 589,071,000 | Rp 680,774,810 | Rp 826,498,822 |

| CASH FLOW | | |
|------------------------------|---------------------|---------------------|
| | Tahun Ke - 4 | Tahun Ke - 5 |
| Saldo Awal Kas | Rp 826,498,822 | Rp 1,041,068,367 |
| PENERIMAAN KAS | | |
| Modal Sendiri | Rp - | Rp - |
| Modal dari pinjaman Bank | Rp - | Rp - |
| Penjualan | Rp 1,404,828,739 | Rp 1,922,671,202 |
| Total Penerimaan Kas | Rp 2,231,327,562 | Rp 2,963,739,569 |
| Pengeluaran Kas | | |
| Investasi | Rp - | Rp - |
| Instalasi & Surat Izin | Rp - | Rp - |
| Harga Beli Barang | Rp 1,039,483,082 | Rp 1,422,638,186 |
| Biaya Tenaga Kerja | Rp 33,800,000 | Rp 33,800,000 |
| Biaya per tahun | Rp 24,093,000 | Rp 24,093,000 |
| Biaya Operasional | Rp 18,000,000 | Rp 18,000,000 |
| Biaya Energi | Rp 15,000,000 | Rp 15,000,000 |
| PPH | Rp 59,883,112 | Rp 100,289,320 |
| Total Pengeluaran Kas | Rp 1,190,259,195 | Rp 1,613,820,506 |
| Saldo Akhir | Rp 1,041,068,367 | Rp 1,349,919,064 |

| NERACA KEUANGAN | | | |
|------------------------|-------------------------|-----------------------|-------------------------|
| Tahun Ke - 0 | | | |
| AKTIVA | | PASSIVA | |
| 1. Aktiva Lancar | | 1. Hutang | |
| Kas | Rp 547,311,200 | Hutang Lancar | Rp - |
| Piutang | | Hutang Dagang | Rp - |
| Total Aktiva Lancar | <u>Rp 547,311,200</u> | Hutang Jangka panjang | Rp - |
| | | Total Hutang | |
| 2. Aktiva Tetap | | 2. Modal | |
| Investasi | Rp 1,001,681,000 | Modal Usaha | Rp 1,555,492,200 |
| Instalasi & Surat Izin | Rp 6,500,000 | Laba ditahan | <u>Rp -</u> |
| Depresiasi | <u>Rp -</u> | | |
| Total Aktiva Tetap | <u>Rp 1,008,181,000</u> | Total Modal | Rp 1,555,492,200 |
| TOTAL AKTIVA | Rp 1,555,492,200 | TOTAL PASSIVA | Rp 1,555,492,200 |

| NERACA KEUANGAN | | | |
|------------------------|-------------------------|-----------------------|-------------------------|
| Tahun Ke - 1 | | | |
| AKTIVA | | PASSIVA | |
| 1. Aktiva Lancar | | 1. Hutang | |
| Kas | Rp 589,071,000 | Hutang Lancar | Rp - |
| Piutang | | Hutang Dagang | Rp - |
| Total Aktiva Lancar | <u>Rp 589,071,000</u> | Hutang Jangka panjang | Rp - |
| | | Total Hutang | |
| 2. Aktiva Tetap | | 2. Modal | |
| Investasi | Rp 1,001,681,000 | Modal Usaha | Rp 1,555,492,200 |
| Instalasi & Surat Izin | Rp 6,500,000 | Laba ditahan | <u>Rp 25,250,850</u> |
| Depresiasi | <u>Rp (16,508,950)</u> | | |
| Total Aktiva Tetap | <u>Rp 991,672,050</u> | Total Modal | Rp 1,580,743,050 |
| TOTAL AKTIVA | Rp 1,580,743,050 | TOTAL PASSIVA | Rp 1,580,743,050 |

| NERACA KEUANGAN | | | |
|------------------------|------------------------|-----------------------|-----------------------|
| Tahun Ke - 2 | | | |
| AKTIVA | | PASSIVA | |
| 1. Aktiva Lancar | | 1. Hutang | |
| Kas | Rp 680,774,810 | Hutang Lancar | Rp - |
| Piutang | | Hutang Dagang | Rp - |
| Total Aktiva Lancar | <u>Rp 680,774,810</u> | Hutang Jangka panjang | Rp - |
| | | Total Hutang | <u>Rp -</u> |
| 2. Aktiva Tetap | | 2. Modal | |
| Investasi | Rp 1,001,681,000 | Modal Usaha | Rp 1,555,492,200 |
| Instalasi & Surat Izin | Rp 6,500,000 | Laba ditahan | <u>Rp 100,445,710</u> |
| Depresiasi | <u>Rp (33,017,900)</u> | | |
| Total Aktiva Tetap | <u>Rp 975,163,100</u> | Total Modal | Rp 1,655,937,910 |
| TOTAL AKTIVA | Rp 1,655,937,910 | TOTAL PASSIVA | Rp 1,655,937,910 |

| NERACA KEUANGAN | | | |
|------------------------|------------------------|-----------------------|-----------------------|
| Tahun Ke - 3 | | | |
| AKTIVA | | PASSIVA | |
| 1. Aktiva Lancar | | 1. Hutang | |
| Kas | Rp 826,498,822 | Hutang Lancar | Rp - |
| Piutang | | Hutang Dagang | Rp - |
| Total Aktiva Lancar | <u>Rp 826,498,822</u> | Hutang Jangka panjang | Rp - |
| | | Total Hutang | <u>Rp -</u> |
| 2. Aktiva Tetap | | 2. Modal | |
| Investasi | Rp 1,001,681,000 | Modal Usaha | Rp 1,555,492,200 |
| Instalasi & Surat Izin | Rp 6,500,000 | Laba ditahan | <u>Rp 229,660,772</u> |
| Depresiasi | <u>Rp (49,526,850)</u> | | |
| Total Aktiva Tetap | <u>Rp 958,654,150</u> | Total Modal | Rp 1,785,152,972 |
| TOTAL AKTIVA | Rp 1,785,152,972 | TOTAL PASSIVA | Rp 1,785,152,972 |

| NERACA KEUANGAN | | | |
|------------------------|-------------------------|-----------------------|-------------------------|
| Tahun Ke - 4 | | | |
| AKTIVA | | PASSIVA | |
| 1. Aktiva Lancar | | 1. Hutang | |
| Kas | Rp 1,041,068,367 | Hutang Lancar | Rp - |
| Piutang | | Hutang Dagang | Rp - |
| Total Aktiva Lancar | <u>Rp 1,041,068,367</u> | Hutang Jangka panjang | Rp - |
| | | Total Hutang | |
| 2. Aktiva Tetap | | 2. Modal | |
| Investasi | Rp 1,001,681,000 | Modal Usaha | Rp 1,555,492,200 |
| Instalasi & Surat Izin | Rp 6,500,000 | Laba ditahan | <u>Rp 427,721,367</u> |
| Depresiasi | <u>Rp (66,035,800)</u> | | |
| Total Aktiva Tetap | <u>Rp 942,145,200</u> | Total Modal | Rp 1,983,213,567 |
| TOTAL AKTIVA | Rp 1,983,213,567 | TOTAL PASSIVA | Rp 1,983,213,567 |

| NERACA KEUANGAN | | | |
|------------------------|-------------------------|-----------------------|-------------------------|
| Tahun Ke - 5 | | | |
| AKTIVA | | PASSIVA | |
| 1. Aktiva Lancar | | 1. Hutang | |
| Kas | Rp 1,349,919,064 | Hutang Lancar | Rp - |
| Piutang | | Hutang Dagang | Rp - |
| Total Aktiva Lancar | <u>Rp 1,349,919,064</u> | Hutang Jangka panjang | Rp - |
| | | Total Hutang | |
| 2. Aktiva Tetap | | 2. Modal | |
| Investasi | Rp 1,001,681,000 | Modal Usaha | Rp 1,555,492,200 |
| Instalasi & Surat Izin | Rp 6,500,000 | Laba ditahan | <u>Rp 720,063,114</u> |
| Depresiasi | <u>Rp (82,544,750)</u> | | |
| Total Aktiva Tetap | <u>Rp 925,636,250</u> | Total Modal | Rp 2,275,555,314 |
| TOTAL AKTIVA | Rp 2,275,555,314 | TOTAL PASSIVA | Rp 2,275,555,314 |

LAMPIRAN 7

TABEL CHI SQUARE

| dk | Taraf Signifikasi | | | | | |
|----|-------------------|--------|--------|--------|--------|--------|
| | 50% | 30% | 20% | 10% | 5% | 1% |
| 1 | 0,455 | 1,074 | 1,642 | 2,706 | 3,481 | 6,635 |
| 2 | 0,139 | 2,408 | 3,219 | 3,605 | 5,591 | 9,21 |
| 3 | 2,366 | 3,665 | 4,642 | 6,251 | 7,815 | 11,341 |
| 4 | 3,357 | 4,878 | 5,989 | 7,779 | 9,488 | 13,277 |
| 5 | 4,351 | 6,064 | 7,289 | 9,236 | 11,07 | 15,086 |
| 6 | 5,348 | 7,231 | 8,558 | 10,645 | 12,592 | 16,812 |
| 7 | 6,346 | 8,383 | 9,803 | 12,017 | 14,017 | 18,475 |
| 8 | 7,344 | 9,524 | 11,03 | 13,362 | 15,507 | 20,09 |
| 9 | 8,343 | 10,626 | 12,242 | 14,684 | 16,919 | 21,666 |
| 10 | 9,342 | 11,781 | 13,442 | 15,987 | 18,307 | 23,209 |
| 11 | 10,341 | 12,899 | 14,631 | 17,275 | 19,675 | 24,725 |
| 12 | 11,34 | 14,011 | 15,812 | 18,549 | 21,026 | 26,217 |
| 13 | 12,34 | 15,19 | 16,985 | 19,812 | 22,368 | 27,688 |
| 14 | 13,332 | 16,222 | 18,151 | 21,064 | 23,685 | 29,141 |
| 15 | 14,339 | 17,322 | 19,311 | 22,307 | 24,996 | 30,578 |
| 16 | 15,338 | 18,418 | 20,465 | 23,542 | 26,296 | 32 |
| 17 | 16,337 | 19,511 | 21,615 | 24,785 | 27,587 | 33,409 |
| 18 | 17,338 | 20,601 | 22,76 | 26,028 | 28,869 | 34,805 |
| 19 | 18,338 | 21,689 | 23,9 | 27,271 | 30,144 | 36,191 |
| 20 | 19,337 | 22,775 | 25,038 | 28,514 | 31,41 | 37,566 |
| 21 | 20,337 | 23,858 | 26,171 | 29,615 | 32,671 | 38,932 |
| 22 | 21,337 | 24,939 | 27,301 | 30,813 | 33,924 | 4,289 |
| 23 | 22,337 | 26,018 | 28,429 | 32,007 | 35,172 | 41,638 |
| 24 | 23,337 | 27,096 | 29,553 | 33,194 | 35,415 | 42,98 |
| 25 | 24,337 | 28,172 | 30,675 | 34,382 | 37,652 | 44,314 |
| 26 | 25,336 | 29,246 | 31,795 | 35,563 | 38,885 | 45,642 |
| 27 | 26,336 | 30,319 | 32,912 | 36,741 | 40,113 | 46,963 |
| 28 | 27,336 | 31,391 | 34,027 | 37,916 | 41,337 | 48,278 |
| 29 | 28,336 | 32,461 | 35,139 | 39,087 | 42,557 | 49,588 |
| 30 | 29,336 | 33,53 | 36,25 | 40,256 | 43,775 | 50,892 |

LAMPIRAN 8

TABEL R PRODUCT MOMENT

| N | Taraf Signifikasi | | N | Taraf Signifikasi | | N | Taraf Signifikasi | |
|----|-------------------|-------|----|-------------------|-------|------|-------------------|-------|
| | 5% | 1% | | 5% | 1% | | 5% | 1% |
| 3 | 0,997 | 0,999 | 27 | 0,381 | 0,487 | 55 | 0,266 | 0,345 |
| 4 | 0,95 | 0,99 | 28 | 0,374 | 0,478 | 60 | 0,254 | 0,33 |
| 5 | 0,878 | 0,959 | 29 | 0,367 | 0,47 | 65 | 0,244 | 0,317 |
| 6 | 0,811 | 0,917 | 30 | 0,361 | 0,463 | 70 | 0,235 | 0,306 |
| 7 | 0,754 | 0,874 | 31 | 0,355 | 0,456 | 75 | 0,227 | 0,296 |
| 8 | 0,707 | 0,834 | 32 | 0,349 | 0,449 | 80 | 0,22 | 0,286 |
| 9 | 0,666 | 0,798 | 33 | 0,344 | 0,442 | 85 | 0,213 | 0,278 |
| 10 | 0,632 | 0,765 | 34 | 0,339 | 0,436 | 90 | 0,207 | 0,27 |
| 11 | 0,602 | 0,735 | 35 | 0,334 | 0,43 | 95 | 0,202 | 0,263 |
| 12 | 0,576 | 0,708 | 36 | 0,329 | 0,424 | 100 | 0,195 | 0,256 |
| 13 | 0,553 | 0,684 | 37 | 0,325 | 0,418 | 125 | 0,176 | 0,23 |
| 14 | 0,532 | 0,661 | 38 | 0,32 | 0,413 | 150 | 0,159 | 0,21 |
| 15 | 0,514 | 0,641 | 39 | 0,316 | 0,408 | 175 | 0,148 | 0,194 |
| 16 | 0,497 | 0,623 | 40 | 0,312 | 0,403 | 200 | 0,138 | 0,181 |
| 17 | 0,4823 | 0,606 | 41 | 0,308 | 0,398 | 300 | 0,113 | 0,148 |
| 18 | 0,468 | 0,59 | 42 | 0,304 | 0,393 | 400 | 0,098 | 0,128 |
| 19 | 0,456 | 0,575 | 43 | 0,301 | 0,389 | 500 | 0,088 | 0,115 |
| 20 | 0,444 | 0,561 | 44 | 0,297 | 0,384 | 600 | 0,08 | 0,105 |
| 21 | 0,433 | 0,549 | 45 | 0,294 | 0,38 | 700 | 0,074 | 0,097 |
| 22 | 0,423 | 0,537 | 46 | 0,291 | 0,376 | 800 | 0,07 | 0,091 |
| 23 | 0,413 | 0,526 | 47 | 0,288 | 0,372 | 900 | 0,065 | 0,086 |
| 24 | 0,404 | 0,515 | 48 | 0,284 | 0,368 | 1000 | 0,062 | 0,081 |
| 25 | 0,396 | 0,505 | 49 | 0,281 | 0,364 | | | |
| 26 | 0,388 | 0,496 | 50 | 0,279 | 0,361 | | | |

LAMPIRAN 9

DATA PENJUALAN KOMPETITOR

Data Penjualan Kompetitor

▶ Data Penjualan (Jumlah Penjualan)

| No | Jenis Barang | Harga | Bulan | | | | | | | | | | | | Total |
|----|-------------------------|-----------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| 1 | Semen Baturaja | Rp 40.000 | 150 | 120 | 154 | 156 | 157 | 100 | 145 | 120 | 148 | 123 | 105 | 147 | 1625 |
| 2 | Besi | Rp 45.000 | 152 | 148 | 142 | 123 | 111 | 100 | 97 | 104 | 109 | 99 | 104 | 103 | 1392 |
| 3 | Pipa PVC | Rp 25.000 | 112 | 124 | 121 | 135 | 124 | 91 | 112 | 114 | 113 | 105 | 107 | 109 | 1367 |
| 4 | Pipa Alphinlon | Rp 40.000 | 82 | 70 | 72 | 71 | 82 | 49 | 58 | 57 | 61 | 67 | 48 | 55 | 772 |
| 5 | Pipa Mitralon | Rp 45.000 | 72 | 73 | 68 | 67 | 55 | 82 | 41 | 71 | 54 | 51 | 59 | 66 | 759 |
| 6 | Pipa Lagoon | Rp 38.000 | 73 | 82 | 43 | 41 | 44 | 57 | 58 | 64 | 61 | 50 | 68 | 61 | 702 |
| 7 | Pipa Putih Galvanis | Rp 75.000 | 53 | 60 | 67 | 59 | 45 | 58 | 50 | 61 | 66 | 59 | 63 | 67 | 708 |
| 8 | Genteng Sakura Roof | Rp 74.800 | 147 | 120 | 159 | 97 | 86 | 94 | 100 | 96 | 106 | 106 | 109 | 104 | 1324 |
| 9 | Genteng Metal | Rp 47.500 | 48 | 72 | 51 | 54 | 59 | 60 | 72 | 51 | 58 | 53 | 57 | 41 | 676 |
| 10 | Cat Tembok Vinotex | Rp 30.000 | 131 | 121 | 140 | 86 | 81 | 97 | 106 | 87 | 121 | 108 | 121 | 104 | 1303 |
| 11 | Cat Tembok Prinilex | Rp 25.000 | 75 | 68 | 61 | 76 | 79 | 81 | 46 | 47 | 53 | 52 | 64 | 72 | 774 |
| 12 | Cat Dasar Kayu | Rp 16.100 | 57 | 59 | 61 | 82 | 73 | 49 | 72 | 76 | 78 | 71 | 79 | 75 | 832 |
| 13 | Cat Dasar Besi | Rp 28.200 | 67 | 58 | 67 | 71 | 54 | 58 | 53 | 67 | 81 | 73 | 70 | 69 | 788 |
| 14 | Cat Minyak Platon | Rp 27.500 | 59 | 73 | 42 | 57 | 86 | 61 | 49 | 57 | 50 | 44 | 57 | 55 | 690 |
| 15 | Cat Minyak Ftalit | Rp 37.500 | 58 | 68 | 61 | 73 | 78 | 67 | 59 | 50 | 81 | 73 | 71 | 78 | 817 |
| 16 | Cat Minyak Kuda Terbang | Rp 30.000 | 60 | 58 | 73 | 48 | 43 | 51 | 47 | 76 | 71 | 72 | 50 | 54 | 703 |
| 17 | Cat Minyak Sendai | Rp 17.500 | 51 | 57 | 64 | 67 | 51 | 53 | 50 | 72 | 81 | 46 | 51 | 58 | 701 |
| 18 | Keramik Arwana Polos | Rp 27.500 | 121 | 135 | 120 | 106 | 83 | 83 | 108 | 94 | 103 | 134 | 95 | 99 | 1281 |
| 19 | Keramik Arwana Emboise | Rp 35.000 | 57 | 58 | 42 | 49 | 41 | 57 | 82 | 56 | 86 | 71 | 54 | 59 | 712 |
| 20 | Keramik Arwana Marble | Rp 33.500 | 51 | 72 | 54 | 60 | 76 | 41 | 49 | 43 | 58 | 57 | 50 | 44 | 655 |

| No | Jenis Barang | Harga | Bulan | | | | | | | | | | | | Total |
|----|----------------------------|------------|-------|-----|-----|-----|-----|----|-----|----|-----|-----|-----|-----|-------|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| 21 | Keramik Arwana Strata | Rp 33,500 | 73 | 57 | 64 | 69 | 52 | 76 | 48 | 41 | 50 | 57 | 61 | 68 | 716 |
| 22 | Keramik Arwana Granity Tua | Rp 36,000 | 49 | 72 | 57 | 51 | 46 | 73 | 49 | 43 | 58 | 69 | 61 | 50 | 678 |
| 23 | Keramik Arwana Fancy | Rp 3,800 | 53 | 68 | 71 | 46 | 48 | 44 | 47 | 51 | 69 | 72 | 49 | 58 | 676 |
| 24 | Keramik Arwana Rustic | Rp 3,700 | 46 | 57 | 48 | 43 | 57 | 50 | 60 | 67 | 61 | 51 | 43 | 48 | 631 |
| 25 | Keramik Kita | Rp 34,000 | 57 | 54 | 38 | 59 | 68 | 73 | 79 | 54 | 52 | 47 | 76 | 54 | 711 |
| 26 | Keramik Vittoria | Rp 31,500 | 57 | 68 | 42 | 48 | 56 | 51 | 50 | 75 | 45 | 68 | 62 | 63 | 685 |
| 27 | Selang Bening | Rp 8,500 | 152 | 169 | 123 | 108 | 105 | 97 | 109 | 89 | 156 | 131 | 126 | 121 | 1486 |
| 28 | Selang GH | Rp 4,600 | 41 | 45 | 47 | 59 | 53 | 64 | 67 | 61 | 52 | 50 | 45 | 57 | 641 |
| 29 | Selang DOP T | Rp 3,300 | 27 | 28 | 54 | 56 | 43 | 39 | 37 | 34 | 36 | 54 | 58 | 34 | 500 |
| 30 | Selang Benang | Rp 7,500 | 57 | 62 | 34 | 38 | 46 | 47 | 59 | 62 | 67 | 34 | 58 | 59 | 623 |
| 31 | Gembok Globe | Rp 8,500 | 100 | 105 | 112 | 121 | 90 | 98 | 137 | 82 | 89 | 82 | 71 | 82 | 1169 |
| 32 | Gembok Terrano | Rp 25,000 | 48 | 76 | 51 | 28 | 67 | 38 | 59 | 76 | 48 | 57 | 51 | 57 | 656 |
| 33 | Gembok Gold Door | Rp 20,000 | 57 | 43 | 49 | 51 | 57 | 53 | 38 | 59 | 67 | 61 | 68 | 54 | 657 |
| 34 | Mur dan Baud | Rp 4,000 | 99 | 108 | 114 | 159 | 99 | 91 | 139 | 87 | 108 | 106 | 124 | 134 | 1368 |
| 35 | Amplas kain | Rp 4,000 | 58 | 53 | 68 | 73 | 70 | 54 | 68 | 63 | 77 | 79 | 64 | 68 | 795 |
| 36 | Amplas Kertas | Rp 4,000 | 43 | 41 | 58 | 39 | 30 | 58 | 52 | 57 | 68 | 51 | 40 | 43 | 580 |
| 37 | Palu | Rp 25,000 | 59 | 54 | 58 | 68 | 67 | 63 | 61 | 70 | 57 | 62 | 58 | 65 | 742 |
| 38 | Paku | Rp 10,000 | 79 | 89 | 78 | 83 | 95 | 90 | 84 | 93 | 95 | 88 | 81 | 74 | 1029 |
| 39 | Obeng | Rp 10,000 | 49 | 69 | 63 | 66 | 59 | 62 | 78 | 73 | 80 | 71 | 68 | 63 | 801 |
| 40 | Engsel Pipa | Rp 4,500 | 60 | 83 | 81 | 68 | 63 | 73 | 75 | 82 | 88 | 63 | 71 | 73 | 880 |
| 41 | Sekop | Rp 20,000 | 81 | 70 | 72 | 68 | 71 | 77 | 80 | 73 | 68 | 77 | 81 | 69 | 887 |
| 42 | Ember Hitam | Rp 2,200 | 69 | 73 | 59 | 78 | 67 | 63 | 74 | 60 | 59 | 68 | 72 | 76 | 818 |
| 43 | Triplex | Rp 75,000 | 46 | 71 | 59 | 54 | 51 | 50 | 49 | 48 | 62 | 67 | 63 | 55 | 675 |
| 44 | Seng Talang | Rp 30,000 | 59 | 59 | 61 | 44 | 69 | 62 | 59 | 51 | 53 | 48 | 47 | 56 | 668 |
| 45 | Seng Gulung | Rp 290,000 | 28 | 34 | 37 | 59 | 23 | 45 | 43 | 57 | 40 | 27 | 51 | 38 | 482 |

| No | Jenis Barang | Harga | Bulan | | | | | | | | | | | | Total |
|----|------------------|-----------|-------|----|----|----|----|----|----|----|----|----|----|----|-------|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| 46 | Seng Aluminium | Rp 75,000 | 43 | 28 | 37 | 38 | 36 | 24 | 41 | 56 | 51 | 42 | 46 | 47 | 489 |
| 47 | Kawat Polos | Rp 10,000 | 59 | 44 | 43 | 40 | 68 | 51 | 59 | 46 | 57 | 44 | 49 | 50 | 610 |
| 48 | Kawat Harmonika | Rp 45,000 | 38 | 34 | 25 | 29 | 67 | 34 | 28 | 48 | 47 | 43 | 38 | 31 | 462 |
| 49 | Kawat Seling | Rp 10,000 | 46 | 37 | 38 | 46 | 57 | 52 | 43 | 48 | 39 | 37 | 45 | 41 | 529 |
| 50 | Kawat Duri | Rp 95,000 | 27 | 38 | 46 | 47 | 54 | 52 | 50 | 37 | 39 | 31 | 42 | 46 | 509 |
| 51 | Siku Kawat | Rp 8,500 | 39 | 54 | 57 | 50 | 58 | 56 | 51 | 43 | 49 | 42 | 47 | 61 | 607 |
| 52 | Siku L | Rp 7,500 | 37 | 69 | 54 | 48 | 43 | 37 | 31 | 52 | 46 | 42 | 47 | 43 | 549 |
| 53 | Siku Besi | Rp 45,000 | 38 | 37 | 34 | 54 | 57 | 52 | 46 | 48 | 57 | 43 | 39 | 42 | 547 |
| 54 | Klem Pipa Ledeng | Rp 7,500 | 48 | 57 | 42 | 46 | 49 | 37 | 54 | 48 | 43 | 46 | 57 | 42 | 569 |

► Data Penjualan (Total Keuntungan)

| No | Jenis Barang | Harga | Total | Total Keuntungan |
|----|-------------------------|-----------|-------|------------------|
| 1 | Semen Baturaja | Rp 25,000 | 1625 | Rp 40,625,000 |
| 2 | Besi | Rp 20,000 | 1392 | Rp 27,840,000 |
| 3 | Pipa PVC | Rp 17,500 | 1367 | Rp 23,922,500 |
| 4 | Pipa Alphinlon | Rp 35,000 | 772 | Rp 27,020,000 |
| 5 | Pipa Mitralon | Rp 40,000 | 759 | Rp 30,360,000 |
| 6 | Pipa Lagoon | Rp 32,500 | 702 | Rp 22,815,000 |
| 7 | Pipa Putih Galvanis | Rp 50,000 | 708 | Rp 35,400,000 |
| 8 | Genteng Sakura Roof | Rp 67,500 | 1324 | Rp 89,370,000 |
| 9 | Genteng Metal | Rp 40,000 | 676 | Rp 27,040,000 |
| 10 | Cat Tembok Vinotex | Rp 27,500 | 1303 | Rp 35,832,500 |
| 11 | Cat Tembok Prinilex | Rp 22,500 | 774 | Rp 17,415,000 |
| 12 | Cat Dasar Kayu | Rp 15,900 | 832 | Rp 13,228,800 |
| 13 | Cat Dasar Besi | Rp 27,000 | 788 | Rp 21,276,000 |
| 14 | Cat Minyak Platon | Rp 25,000 | 690 | Rp 17,250,000 |
| 15 | Cat Minyak Ftalit | Rp 35,000 | 817 | Rp 28,595,000 |
| 16 | Cat Minyak Kuda Terbang | Rp 28,000 | 703 | Rp 19,684,000 |
| 17 | Cat Minyak Sendai | Rp 16,500 | 701 | Rp 11,566,500 |
| 18 | Keramik Arwana Polos | Rp 22,500 | 1281 | Rp 28,822,500 |
| 19 | Keramik Arwana Emboise | Rp 30,000 | 712 | Rp 21,360,000 |
| 20 | Keramik Arwana Marble | Rp 30,000 | 655 | Rp 19,650,000 |

| No | Jenis Barang | Harga | Total | Total Keuntungan |
|----|----------------------------|------------|-------|------------------|
| 21 | Keramik Arwana Strata | Rp 30,000 | 716 | Rp 21,480,000 |
| 22 | Keramik Arwana Granity Tua | Rp 33,000 | 678 | Rp 22,374,000 |
| 23 | Keramik Arwana Fancy | Rp 3,500 | 676 | Rp 2,366,000 |
| 24 | Keramik Arwana Rustic | Rp 3,000 | 631 | Rp 1,893,000 |
| 25 | Keramik Kita | Rp 29,500 | 711 | Rp 20,974,500 |
| 26 | Keramik Vittoria | Rp 28,000 | 685 | Rp 19,180,000 |
| 27 | Selang Bening | Rp 7,500 | 1486 | Rp 11,145,000 |
| 28 | Selang GH | Rp 4,000 | 641 | Rp 2,564,000 |
| 29 | Selang DOP T | Rp 2,500 | 500 | Rp 1,250,000 |
| 30 | Selang Benang | Rp 7,000 | 623 | Rp 4,361,000 |
| 31 | Gembok Globe | Rp 5,500 | 1169 | Rp 6,429,500 |
| 32 | Gembok Terrano | Rp 22,500 | 656 | Rp 14,760,000 |
| 33 | Gembok Gold Door | Rp 15,000 | 657 | Rp 9,855,000 |
| 34 | Mur dan Baud | Rp 3,000 | 1368 | Rp 4,104,000 |
| 35 | Amplas kain | Rp 3,000 | 795 | Rp 2,385,000 |
| 36 | Amplas Kertas | Rp 4,000 | 580 | Rp 2,320,000 |
| 37 | Palu | Rp 22,500 | 742 | Rp 16,695,000 |
| 38 | Paku | Rp 9,000 | 1029 | Rp 9,261,000 |
| 39 | Obeng | Rp 9,000 | 801 | Rp 7,209,000 |
| 40 | Engsel Pipa | Rp 4,000 | 880 | Rp 3,520,000 |
| 41 | Sekop | Rp 17,500 | 887 | Rp 15,522,500 |
| 42 | Ember Hitam | Rp 2,000 | 818 | Rp 1,636,000 |
| 43 | Triplex | Rp 50,000 | 675 | Rp 33,750,000 |
| 44 | Seng Talang | Rp 16,500 | 668 | Rp 11,022,000 |
| 45 | Seng Gulung | Rp 275,000 | 482 | Rp 132,550,000 |

| No | Jenis Barang | Harga | Total | Total Keuntungan |
|----|------------------|-----------|-------|------------------|
| 46 | Seng Aluminium | Rp 67,500 | 489 | Rp 33,007,500 |
| 47 | Kawat Polos | Rp 7,500 | 610 | Rp 4,575,000 |
| 48 | Kawat Harmonika | Rp 40,000 | 462 | Rp 18,480,000 |
| 49 | Kawat Seling | Rp 9,000 | 529 | Rp 4,761,000 |
| 50 | Kawat Duri | Rp 90,000 | 509 | Rp 45,810,000 |
| 51 | Siku Kawat | Rp 7,500 | 607 | Rp 4,552,500 |
| 52 | Siku L | Rp 7,000 | 549 | Rp 3,843,000 |
| 53 | Siku Besi | Rp 42,500 | 547 | Rp 23,247,500 |
| 54 | Klem Pipa Ledeng | Rp 6,000 | 569 | Rp 3,414,000 |

Dari data penjualan toko kompetitor diatas maka penulis menentukan barang yang akan dijual dilihat dari jumlah barang yang terjual terbanyak dan juga dari segi total keuntungannya sehingga didapat barang yang akan dijual sebanyak 20 item, yaitu:

| No | Jenis Barang | Harga | Bulan | | | | | | | | | | | | Total |
|----|----------------------|-----------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| 1 | Semen Baturaja | Rp 40,000 | 150 | 120 | 154 | 156 | 157 | 100 | 145 | 120 | 148 | 123 | 105 | 147 | 1625 |
| 2 | Besi | Rp 45,000 | 152 | 148 | 142 | 123 | 111 | 100 | 97 | 104 | 109 | 99 | 104 | 103 | 1392 |
| 3 | Pipa PVC | Rp 25,000 | 112 | 124 | 121 | 135 | 124 | 91 | 112 | 114 | 113 | 105 | 107 | 109 | 1367 |
| 4 | Genteng | Rp 74,800 | 147 | 120 | 159 | 97 | 86 | 94 | 100 | 96 | 106 | 106 | 109 | 104 | 1324 |
| 5 | Cat Tembok Vinotex | Rp 30,000 | 131 | 121 | 140 | 86 | 81 | 97 | 106 | 87 | 121 | 108 | 121 | 104 | 1303 |
| 6 | Keramik Arwana Polos | Rp 27,500 | 121 | 135 | 120 | 106 | 83 | 83 | 108 | 94 | 103 | 134 | 95 | 99 | 1281 |
| 7 | Selang | Rp 8,500 | 152 | 169 | 123 | 108 | 105 | 97 | 109 | 89 | 156 | 131 | 126 | 121 | 1486 |
| 8 | Gembok Globe | Rp 8,500 | 100 | 105 | 112 | 121 | 90 | 98 | 137 | 82 | 89 | 82 | 71 | 82 | 1169 |
| 9 | Mur dan Baud | Rp 4,000 | 99 | 108 | 114 | 159 | 99 | 91 | 139 | 87 | 108 | 106 | 124 | 134 | 1368 |
| 10 | Amplas Kain | Rp 4,000 | 58 | 53 | 68 | 73 | 70 | 54 | 68 | 63 | 77 | 79 | 64 | 68 | 795 |
| 11 | Palu | Rp 25,000 | 59 | 54 | 58 | 68 | 67 | 63 | 61 | 70 | 57 | 62 | 58 | 65 | 742 |
| 12 | Obeng | Rp 10,000 | 79 | 89 | 78 | 83 | 95 | 90 | 84 | 93 | 95 | 88 | 81 | 74 | 1029 |
| 13 | Paku | Rp 10,000 | 49 | 69 | 63 | 66 | 59 | 62 | 78 | 73 | 80 | 71 | 68 | 63 | 801 |
| 14 | Engsel Pipa | Rp 4,500 | 60 | 83 | 81 | 68 | 63 | 73 | 75 | 82 | 88 | 63 | 71 | 73 | 880 |
| 15 | Sekop | Rp 20,000 | 81 | 70 | 72 | 68 | 71 | 77 | 80 | 73 | 68 | 77 | 81 | 69 | 887 |
| 16 | Ember Hitam | Rp 2,200 | 69 | 73 | 59 | 78 | 67 | 63 | 74 | 60 | 59 | 68 | 72 | 76 | 818 |
| 17 | Triplex | Rp 75,000 | 46 | 71 | 59 | 54 | 51 | 50 | 49 | 48 | 62 | 67 | 63 | 55 | 675 |
| 18 | Seng | Rp 30,000 | 59 | 59 | 61 | 44 | 69 | 62 | 59 | 51 | 53 | 48 | 47 | 56 | 668 |
| 19 | Pipa Putih Galvanis | Rp 75,000 | 53 | 60 | 67 | 59 | 45 | 58 | 50 | 61 | 66 | 59 | 63 | 67 | 708 |
| 20 | Kawat polos | Rp 10,000 | 59 | 44 | 43 | 40 | 68 | 51 | 59 | 46 | 57 | 44 | 49 | 50 | 610 |