



## LAMPIRAN 1

**PEMISAHAN BIAYA SEMI VARIABEL  
TELEPON DAN LISTRIK**

| No  | Bulan     | Vol. Penjualan<br>(X) | Telepon & Listrik<br>(Y) | XY                        | X <sup>2</sup> |
|-----|-----------|-----------------------|--------------------------|---------------------------|----------------|
| 1.  | Januari   | 1171                  | 1.885.245                | 2.172.491.895             | 1.371.241      |
| 2.  | Februari  | 1553                  | 235.550                  | 3.020.607.135             | 2.411.809      |
| 3.  | Maret     | 4126                  | 2.995.800                | 3.937.709.150             | 17.023.876     |
| 4.  | April     | 1449                  | 2.084.615                | 4.941.061.725             | 2.099.601      |
| 5.  | Mei       | 2761                  | 2.852.500                | 5.712.076.500             | 7.623.121      |
| 6.  | Juni      | 3071                  | 2.972.500                | 6.223.959.000             | 9.431.041      |
| 7.  | Juli      | 3021                  | 2.955.875                | 6.999.260.745             | 9.126.441      |
| 8.  | Agustus   | 2481                  | 2.821.145                | 7.328.862.750             | 6.155.361      |
| 9.  | September | 2268                  | 2.744.250                | 7.875.752.500             | 6.143.824      |
| 10. | Oktober   | 2585                  | 2.835.150                | 8.929.698.375             | 6.682.225      |
| 11. | Nopember  | 2160                  | 2.644.480                | 9.128.547.500             | 4.665.600      |
| 12. | Desember  | 1877                  | 2.632.425                | 1,23606708 <sup>10</sup>  | 3.523.129      |
|     |           | 28523                 | 32.929.535               | 7,863069808 <sup>10</sup> | 75.259.269     |

$$\begin{aligned}
 b &= \frac{n \cdot \sum xy - \sum x - \sum y}{n \sum x^2 - (\sum x)^2} \\
 &= \frac{12 \cdot (7,863069808^{10}) - (28.523) (32.929.535)}{12 (75.259.269) - (28.523)^2} \\
 &= 48,23 \\
 a &= \frac{\sum x^2 \cdot \sum y - \sum x \cdot \sum xy}{n \cdot \sum x^2 - (\sum x)^2} \\
 &= \frac{(75.259.269) (32.929.535) - (28.523) (7,863069808^{10})}{12 (75.259.269) - (28.523)^2} \\
 &= 2.629.482,116
 \end{aligned}$$

## LAMPIRAN 2

**PEMISAHAN BIAYA SEMI VARIABEL  
PEMELIHARAAN GUDANG**

| No  | Bulan     | Vol. Penjualan<br>(X) | Pemeliharaan Gudang<br>(Y) | XY                        | X <sup>2</sup> |
|-----|-----------|-----------------------|----------------------------|---------------------------|----------------|
| 1.  | Januari   | 1171                  | 5.174.136                  | 6.058.913.256             | 1.371.241      |
| 2.  | Februari  | 1553                  | 5.521.126                  | 8.574.308.678             | 2.411.809      |
| 3.  | Maret     | 4126                  | 7.465.100                  | 3.08010026 <sup>10</sup>  | 17.023.876     |
| 4.  | April     | 1449                  | 5.513.360                  | 7.988.858.640             | 2.099.601      |
| 5.  | Mei       | 2761                  | 6.422.125                  | 1,773148713 <sup>10</sup> | 7.623.121      |
| 6.  | Juni      | 3071                  | 7.267.335                  | 2,231798579 <sup>10</sup> | 9.431.041      |
| 7.  | Juli      | 3021                  | 6.442.050                  | 1,946143305 <sup>10</sup> | 9.126.441      |
| 8.  | Agustus   | 2481                  | 6.332.250                  | 1,571031225 <sup>10</sup> | 6.155.361      |
| 9.  | September | 2268                  | 6.331.250                  | 1,4359275 <sup>10</sup>   | 5.143.824      |
| 10. | Oktober   | 2585                  | 6.365.020                  | 1,64535767 <sup>10</sup>  | 6.682.225      |
| 11. | Nopember  | 2160                  | 6.154.150                  | 1,3292964 <sup>10</sup>   | 4.665.600      |
| 12. | Desember  | 1877                  | 6.115.186                  | 1,147820412 <sup>10</sup> | 3.523.129      |
|     |           | 28523                 | 75.103.088                 | 184.428.321.200           | 75.259.269     |

$$\begin{aligned}
 a &= \frac{\sum x^2 \cdot \sum y - \sum x \cdot \sum xy}{n \sum x^2 - (\sum x)^2} \\
 &= \frac{(75.259.269)(75.103.088) - (28.523)(184.428.321.200)}{12(75.259.269) - (28.523)^2} \\
 &= 4.374.715,96 \\
 b &= \frac{n \cdot \sum xy - \sum x \cdot \sum y}{n \cdot \sum x^2 - (\sum x)^2} \\
 &= \frac{12 \cdot (184.428.321.200) - (28.523)(75.103.088)}{12(75.259.269) - (28.523)^2} \\
 &= 792,57
 \end{aligned}$$

## LAMPIRAN 3

**PEMISAHAN BIAYA SEMI VARIABEL  
PEMELIHARAAN MESIN**

| No  | Bulan     | Vol. Penjualan<br>(X) | Pemeliharaan Mesin<br>(Y) | XY            | X <sup>2</sup> |
|-----|-----------|-----------------------|---------------------------|---------------|----------------|
| 1.  | Januari   | 1171                  | 203.350                   | 238.122.850   | 1.371.241      |
| 2.  | Februari  | 1553                  | 258.325                   | 401.178.725   | 2.411.809      |
| 3.  | Maret     | 4126                  | 395.500                   | 1.631.833.000 | 17.023.876     |
| 4.  | April     | 1449                  | 243.275                   | 352.505.475   | 2.099.601      |
| 5.  | Mei       | 2761                  | 354.250                   | 978.084.250   | 7.623.121      |
| 6.  | Juni      | 3071                  | 385.750                   | 1.184.638.250 | 9.431.041      |
| 7.  | Juli      | 3021                  | 362.150                   | 1.094.055.150 | 9.126.441      |
| 8.  | Agustus   | 2481                  | 332.125                   | 824.002.125   | 6.155.361      |
| 9.  | September | 2268                  | 324.000                   | 734.832.000   | 5.143.824      |
| 10. | Oktober   | 2585                  | 334.550                   | 864.811.750   | 6.682.225      |
| 11. | Nopember  | 2160                  | 312.000                   | 673.920.000   | 4.665.600      |
| 12. | Desember  | 1877                  | 309.425                   | 580.790.725   | 3.523.129      |
|     |           | 28523                 | 3.814.700                 | 9.558.774.300 | 75.259.269     |

$$\begin{aligned}
 a &= \frac{\sum x^2 \cdot \sum y - \sum x \cdot \sum xy}{n \sum x^2 - (\sum x)^2} \\
 &= \frac{(75.259.269) (3.814.700) - (28.523) (9.558.774.300)}{12 (75.259.269) - (28.523)^2} \\
 &= 161.325,09
 \end{aligned}$$

$$\begin{aligned}
 b &= \frac{n \cdot \sum xy - \sum x \cdot \sum y}{n \cdot \sum x^2 - (\sum x)^2} \\
 &= \frac{12 \cdot (9.558.774.300) - (28.523) (3.814.700)}{12 (75.259.269) - (28.523)^2} \\
 &= 65,87
 \end{aligned}$$

## LAMPIRAN 4

**PEMISAHAN BIAYA SEMI VARIABEL  
PEMELIHARAAN KENDARAAN**

| No  | Bulan     | Vol. Penjualan (X) | Pemeliharaan Kendaraan (Y) | XY             | X <sup>2</sup> |
|-----|-----------|--------------------|----------------------------|----------------|----------------|
| 1.  | Januari   | 1171               | 624.100                    | 730.821.100    | 1.371.241      |
| 2.  | Februari  | 1553               | 643.000                    | 998.579.000    | 2.411.809      |
| 3.  | Maret     | 4126               | 810.000                    | 3.342.060.000  | 17.023.876     |
| 4.  | April     | 1449               | 642.000                    | 930.258.000    | 2.099.601      |
| 5.  | Mei       | 2761               | 732.750                    | 2.023.122.750  | 7.623.121      |
| 6.  | Juni      | 3071               | 750.000                    | 2.303.250.000  | 9.431.041      |
| 7.  | Juli      | 3021               | 736.400                    | 2.224.664.400  | 9.126.441      |
| 8.  | Agustus   | 2481               | 723.000                    | 1.793.763.000  | 6.155.361      |
| 9.  | September | 2268               | 715.500                    | 1.622.754.000  | 5.143.824      |
| 10. | Oktober   | 2585               | 724.500                    | 1.872.832.500  | 6.682.225      |
| 11. | Nopember  | 2160               | 703.500                    | 1.519.560.000  | 4.665.600      |
| 12. | Desember  | 1877               | 696.600                    | 1.307.518.000  | 3.523.129      |
|     |           | 28523              | 8.501.350                  | 20.669.182.950 | 75.259.269     |

$$\begin{aligned}
 a &= \frac{\sum x^2 \cdot \sum y - \sum x \cdot \sum xy}{n \sum x^2 - (\sum x)^2} \\
 &= \frac{(75.259.269)(8.501.350) - (28.523)(20.669.182.950)}{12(75.259.269) - (28.523)^2} \\
 &= 561.233,40
 \end{aligned}$$

$$\begin{aligned}
 b &= \frac{n \cdot \sum xy - \sum x \cdot \sum y}{n \cdot \sum x^2 - (\sum x)^2} \\
 &= \frac{12 \cdot (20.669.182.950) - (28.523)(8.501.350)}{12(75.259.269) - (28.523)^2} \\
 &= 61,9342
 \end{aligned}$$

## LAMPIRAN 5

**RATA-RATA DAN SIMPANGAN BAKU  
BIAYA TETAP DAN BIAYA VARIABEL  
TAHUN 1996 – 1998 (DALAM Rp)**

| Tahun | Total Biaya   | Biaya Tetap | Biaya Variabel |
|-------|---------------|-------------|----------------|
| 1996  | 2.058.435.589 | 221.475.195 | 1.836.960.394  |
| 1997  | 4.788.659.209 | 268.565.247 | 4.520.093.962  |
| 1998  | 6.230.098.757 | 470.253.127 | 5.759.845.630  |

**RATA-RATA DAN SIMPANGAN BAKU  
BIAYA TETAP  
(DALAM Rp)**

| Tahun | Biaya Tetap (xi) | (xi - $\bar{x}$ ) | (xi - $\bar{x}$ ) <sup>2</sup> |
|-------|------------------|-------------------|--------------------------------|
| 1996  | 221.475.195      | -98.622.661,3     | 9,726429322 <sup>15</sup>      |
| 1997  | 268.565.247      | -51.532.609,3     | 2,655609821 <sup>15</sup>      |
| 1998  | 470.253.127      | 150.155.270,7     | 2,254660532 <sup>16</sup>      |
|       | 960.293.569      |                   | 3,492864446 <sup>16</sup>      |

$$\bar{X} = \frac{960.293.569}{3} = 320.097.856,3$$

$$\sigma = \sqrt{\frac{\sum (\bar{x}_i - x)^2}{n - 1}}$$

$$= \sqrt{\frac{3,492864446^{16}}{2}}$$

$$= \text{Rp } 132.152.647,5$$

Biaya variabel per unit

$$\text{Bi var / unit tahun 1996} = \frac{1.836.960.394}{25.050} = 73.331,75$$

$$\text{Bi var / unit tahun 1997} = \frac{4.520.093.962}{35.532} = 127.211,92$$

$$\text{Bi var / unit tahun 1998} = \frac{5.759.845.630}{28.523} = 210.936,88$$

**BIAYA RATA-RATA DAN SIMPANGAN BAKU  
BIAYA VARIABEL / UNIT  
(DALAM Rp)**

| Tahun | Biaya variabel / unit (xi) | (xi - $\bar{x}$ ) | (xi - $\bar{x}$ ) <sup>2</sup> |
|-------|----------------------------|-------------------|--------------------------------|
| 1996  | 73.331,75                  | -60.828,4333      | 3.700.098.298                  |
| 1997  | 127.211,92                 | -6.948,2633       | 48.278.362,89                  |
| 1998  | 201.936,88                 | 97.456,33         | 4.550.356.457                  |
|       | 402.480,55                 |                   | 8.298.733.118                  |

$$\bar{X} = \frac{402.480,55}{3}$$

$$= 134.160,1833$$

$$\sigma = \sqrt{\frac{8.298.733.118}{2}}$$

$$= 64.415,57699$$

## LAMPIRAN 6

## VOLUME PENJUALAN

| Bulan     | 1996 | 1997 | 1998 |
|-----------|------|------|------|
| Januari   | 1045 | 1644 | 1171 |
| Februari  | 1343 | 2185 | 1553 |
| Maret     | 3337 | 3401 | 4126 |
| April     | 1365 | 5152 | 1449 |
| Mei       | 2224 | 1241 | 2761 |
| Juni      | 2975 | 3476 | 3071 |
| Juli      | 2839 | 3126 | 3021 |
| Agustus   | 1932 | 3733 | 2481 |
| September | 2232 | 5195 | 2268 |
| Oktober   | 2341 | 2937 | 2585 |
| Nopember  | 1880 | 1895 | 2160 |
| Desember  | 1537 | 1947 | 1877 |



| Data        | fi | xi     | fi . xi | xi - $\bar{x}$ | (xi - $\bar{x}$ ) <sup>2</sup> | F (xi - $\bar{x}$ ) <sup>2</sup> |
|-------------|----|--------|---------|----------------|--------------------------------|----------------------------------|
| 1045 – 1736 | 9  | 1390,5 | 12514,5 | 1076,44        | 1158723,674                    | 10428507,66                      |
| 1737 – 2428 | 11 | 2082,5 | 22907,5 | 384,44         | 147794,1136                    | 1625735,25                       |
| 2429 – 3120 | 8  | 2774,5 | 22196   | 307,56         | 94593,1536                     | 756745,2288                      |
| 3121 – 3812 | 5  | 3466,5 | 17332,5 | 999,56         | 999120,1936                    | 14995600,968                     |
| 3813 – 4504 | 1  | 4158,5 | 4158,5  | 1691,56        | 2861375,234                    | 2861375,234                      |
| 4505 – 5196 | 2  | 4850,5 | 9701    | 2383,56        | 5681358,274                    | 11362716,55                      |
|             | 36 | 18723  | 88810   |                |                                | 42030680,88                      |

$$\bar{X} = \frac{88810}{36} = 2466,94$$

$$S = \sqrt{\frac{42030680,88}{35}}$$

$$= 1095,84$$

$$= 1096$$





# PT. Calistaprima Pirantiindah

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: 03/CP/II/00

Semarang, 4 Pebruari 2000

: KETERANGAN SURVEY.

gan hormat,  
g bertanda tangan di bawah ini saya,

Nama : DRS. RACHMIYANTO  
Jabatan : GENERAL MANAGER

erangkan bahwa mahasiswa yang disebut di bawah ini

Nama : DWI SETYOWATI  
NIM : 94.60.123  
NIRM : 94.6.111.02030.50018  
Jurusan : AKUNTANSI  
Fakultas : EKONOMI  
UNIVERSITAS KATOLIK SOEJAPRANATA  
SEMARANG

r—benar telah mengadakan Survey di perusahaan kami  
an mengambil judul :

ANALISIS HUBUNGAN BIAYA – VOLUME – LABA DALAM KONDISI KETIDAKPASTIAN  
( STUDI KASUS PADA PT. CALISTAPRIMA PIRANTIINDAH SEMARANG )

Dari Tanggal 1 Juli s/d 31 Juli 1999

kian keterangan kami untuk dapat digunakan semestinya.

DRS. RACHMIYANTO  
GENERAL MANAGER