



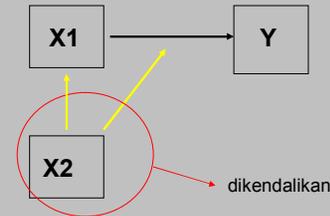
ANALISIS KORELASI PARSIAL

Agus Susworo Dwi Marhaendro



Konsep

- Hubungan murni antara 2 variabel, yang mengendalikan variabel yang lain
- 1 variabel terikat dgn 1 variabel bebas, dikendalikan 1 atau lebih variabel bebas (karena diduga mempengaruhi hubungan kedua variabel tersebut)



Rumus

1 variabel terikat (Y)
2 variabel bebas (X₁ dan X₂)

$$r_{X_1.Y-X_2} = \frac{r_{X_1.Y} - (r_{X_2.Y}) \cdot (r_{X_1.X_2})}{\sqrt{[1 - (r_{X_2.Y})^2][1 - (r_{X_1.X_2})^2]}}$$

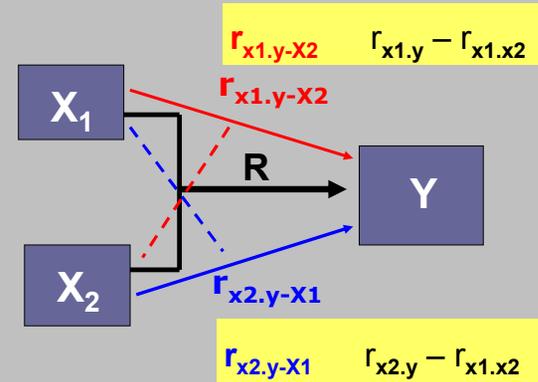
$r_{X_1.Y}$ = koefisien korelasi X₁ dgn Y
 $r_{X_2.Y}$ = koefisien korelasi X₂ dgn Y
 $r_{X_1.X_2}$ = koefisien korelasi X₁ dgn X₂

$$r_{X_2.Y-X_1} = \frac{r_{X_2.Y} - (r_{X_1.Y}) \cdot (r_{X_1.X_2})}{\sqrt{[1 - (r_{X_1.Y})^2][1 - (r_{X_1.X_2})^2]}}$$

$r_{X_1.Y-X_2}$ = koefisien korelasi parsial X₁ dgn Y, mengendalikan X₂
 $r_{X_2.Y-X_1}$ = koefisien korelasi parsial X₂ dgn Y, mengendalikan X₁



Konsep hubungan



Contoh

Bagaimana hubungan murni antara X1 dan X2 terhadap Y

| Subyek | X1 | X2 | Y |
|--------|----|----|----|
| 1 | 10 | 7 | 23 |
| 2 | 2 | 3 | 7 |
| 3 | 4 | 3 | 15 |
| 4 | 6 | 4 | 17 |
| 5 | 8 | 6 | 23 |
| 6 | 7 | 5 | 22 |
| 7 | 4 | 2 | 10 |
| 8 | 6 | 2 | 14 |
| 9 | 6 | 4 | 20 |
| 10 | 7 | 3 | 19 |

Jawab

o Diperoleh

$$r_{x_1x_2} = 0,7682 \quad r_{x_2y} = 0,7898 \quad r_{x_1y} = 0,9029$$

o Perhitungan

$$r_{x_1,y-x_2} = \frac{r_{x_1,y} - (r_{x_2,y}) \cdot (r_{x_1,x_2})}{\sqrt{[1 - (r_{x_2,y})^2][1 - (r_{x_1,x_2})^2]}}$$

$$r_{x_2,y-x_1} = \frac{r_{x_2,y} - (r_{x_1,y}) \cdot (r_{x_1,x_2})}{\sqrt{[1 - (r_{x_1,y})^2][1 - (r_{x_1,x_2})^2]}}$$

$$r_{x_1,y-x_2} = \frac{0,9029 - (0,7898) \cdot (0,7682)}{\sqrt{[1 - (0,7898)^2][1 - (0,7682)^2]}}$$

$$r_{x_2,y-x_1} = \frac{0,7898 - (0,9029) \cdot (0,7682)}{\sqrt{[1 - (0,9029)^2][1 - (0,7682)^2]}}$$

$$r_{x_1,y-x_2} = \frac{0,9029 - 0,6067}{\sqrt{[1 - 0,6238][1 - 0,5901]}}$$

$$r_{x_2,y-x_1} = \frac{0,7898 - 0,6936}{\sqrt{[1 - 0,8152][1 - 0,5901]}}$$

$$r_{x_1,y-x_2} = \frac{0,2962}{\sqrt{[0,3762][0,4099]}}$$

$$r_{x_2,y-x_1} = \frac{0,0962}{\sqrt{[0,1848][0,4099]}}$$

$$r_{x_1,y-x_2} = \frac{0,2962}{\sqrt{0,1542}} = \frac{0,2962}{0,3927} = 0,7543$$

$$r_{x_2,y-x_1} = \frac{0,0962}{\sqrt{0,0757}} = \frac{0,0962}{0,2752} = 0,3495$$