

Anvendt Statistik og KeHaTools Kapitel 15: Multipel lineær regression

Oversigt

- Kapitel 15.2 multipel lineær regression

Multipel lineær regression - I

FS_Data.xlsx - Microsoft Excel

Filer Start Indsæ Sidela Forml Data Genn Vis Udvik Tilføj ?

R3 f_x =(O3-O2)/O2

| | A | B | C | D | E | F | G |
|----|----|---------|-------|---------|--------|----------|---------|
| 1 | Nr | Pris | Alder | Kørt km | 5 dørs | Metallak | Øst for |
| 2 | 1 | 47.900 | 4 | 128.000 | 0 | 1 | 1 |
| 3 | 2 | 86.900 | 2 | 40.000 | 1 | 1 | 0 |
| 4 | 3 | 84.900 | 1 | 36.000 | 1 | 0 | 1 |
| 5 | 4 | 62.900 | 5 | 144.000 | 1 | 1 | 1 |
| 6 | 5 | 88.900 | 2 | 48.000 | 1 | 1 | 1 |
| 7 | 6 | 71.650 | 4 | 45.000 | 0 | 1 | 0 |
| 8 | 7 | 71.650 | 5 | 89.000 | 0 | 0 | 0 |
| 9 | 8 | 75.400 | 3 | 66.000 | 1 | 0 | 0 |
| 10 | 9 | 76.900 | 2 | 52.000 | 1 | 1 | 1 |
| 11 | 10 | 82.650 | 3 | 57.000 | 1 | 1 | 0 |
| 12 | 11 | 108.150 | 1 | 15.000 | 1 | 1 | 1 |
| 13 | 12 | 65.150 | 5 | 91.000 | 1 | 1 | 0 |
| 14 | 13 | 65.150 | 3 | 95.000 | 1 | 1 | 1 |
| 15 | 14 | 97.900 | 2 | 36.000 | 1 | 0 | 0 |
| 16 | 15 | 88.900 | 1 | 24.000 | 0 | 0 | 1 |
| 17 | 16 | 68.400 | 3 | 46.000 | 0 | 1 | 0 |
| 18 | 17 | 78.900 | 3 | 72.000 | 1 | 1 | 1 |
| 19 | 18 | 60.650 | 5 | 117.000 | 1 | 1 | 0 |
| 20 | 19 | 80.150 | 2 | 55.000 | 0 | 1 | 0 |
| 21 | 20 | 50.150 | 5 | 135.000 | 0 | 0 | 0 |
| 22 | 21 | 78.400 | 1 | 30.000 | 0 | 1 | 1 |
| 23 | 22 | 76.650 | 2 | 61.000 | 0 | 1 | 0 |
| 24 | 23 | 87.150 | 1 | 31.000 | 0 | 1 | 0 |
| 25 | 24 | 94.650 | 1 | 29.000 | 1 | 0 | 1 |

Kapitel 4 Kapitel 6 Kapitel 7 Kl

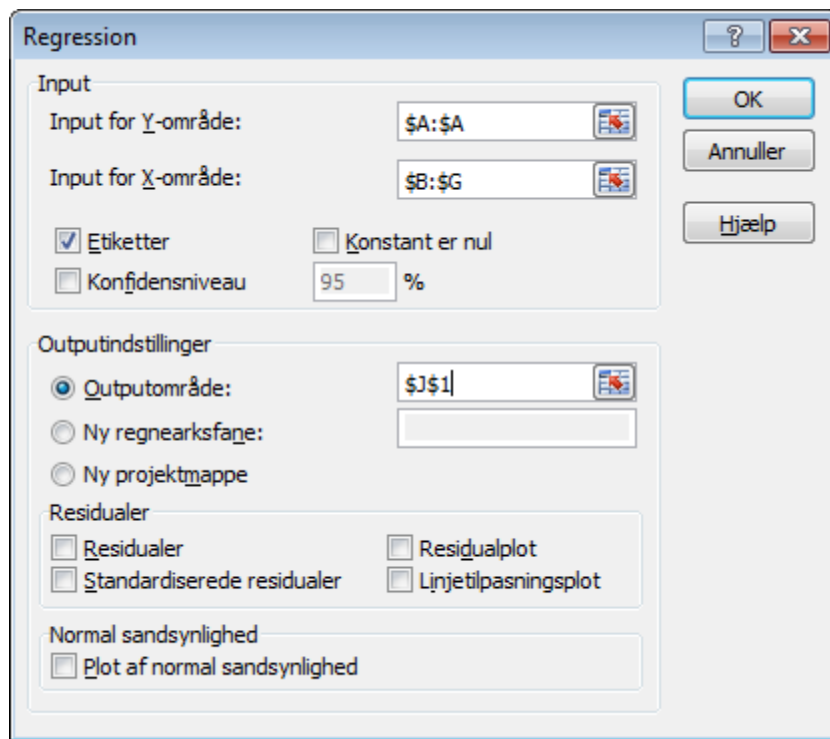
Klar 100%

Multipl lineær regression - II

The screenshot shows the Microsoft Excel interface with the 'Data' tab selected in the ribbon. The 'Dataanalyse' (Data Analysis) toolpak is also selected. A dialog box titled 'Dataanalyse' is open, showing a list of analysis tools. The 'Regression' option is highlighted and circled in red. The data table below shows columns for 'Nr', 'Pris', 'Alder', 'Kørte km', '5 dørs', 'Metallak', and 'Øst for'.

| | A | B | C | D | E | F | G | H | I | J | K | L | M |
|----|----|---------|-------|----------|--------|----------|---------|---|---|---|---|---|---|
| 1 | Nr | Pris | Alder | Kørte km | 5 dørs | Metallak | Øst for | | | | | | |
| 2 | 1 | 47.900 | 4 | 128.000 | 0 | 1 | 1 | | | | | | |
| 3 | 2 | 86.900 | 2 | 40.000 | 1 | 1 | 0 | | | | | | |
| 4 | 3 | 84.900 | 1 | 36.000 | 1 | 0 | 1 | | | | | | |
| 5 | 4 | 62.900 | 5 | 144.000 | 1 | 1 | 1 | | | | | | |
| 6 | 5 | 88.900 | 2 | 48.000 | 1 | 1 | 1 | | | | | | |
| 7 | 6 | 71.650 | 4 | 45.000 | 0 | 1 | 0 | | | | | | |
| 8 | 7 | 71.650 | 5 | 89.000 | 0 | 0 | 0 | | | | | | |
| 9 | 8 | 75.400 | 3 | 66.000 | 1 | 0 | 0 | | | | | | |
| 10 | 9 | 76.900 | 2 | 52.000 | 1 | 1 | 1 | | | | | | |
| 11 | 10 | 82.650 | 3 | 57.000 | 1 | 1 | 0 | | | | | | |
| 12 | 11 | 108.150 | 1 | 15.000 | 1 | 1 | 1 | | | | | | |
| 13 | 12 | 65.150 | 5 | 91.000 | 1 | 1 | 0 | | | | | | |
| 14 | 13 | 65.150 | 3 | 95.000 | 1 | 1 | 1 | | | | | | |
| 15 | 14 | 97.900 | 2 | 36.000 | 1 | 0 | 0 | | | | | | |
| 16 | 15 | 88.900 | 1 | 24.000 | 0 | 0 | 1 | | | | | | |
| 17 | 16 | 68.400 | 3 | 46.000 | 0 | 1 | 0 | | | | | | |
| 18 | 17 | 78.900 | 2 | 72.000 | 1 | 1 | 1 | | | | | | |

Multipel lineær regression - III



Multipel lineær regression - IV

The screenshot displays the Microsoft Excel interface with the following data:

| FS_Data.xlsx - Microsoft Excel | | | | | | | | | | |
|--------------------------------|-----------------------------|----------------------|-------------------|---------------|----------------|---------------------|-----------------|--------------------|-------------------|---|
| Data | | | | | | | | | | |
| Q12 | | | | | | | | | | |
| | A | B | C | D | E | F | G | H | I | J |
| 1 | RESUMEOUTPUT | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | <i>Regressionsstatistik</i> | | | | | | | | | |
| 4 | Multipel F | 0,400758 | | | | | | | | |
| 5 | R-kvadrer | 0,160607 | | | | | | | | |
| 6 | Justeret R | -0,01306 | | | | | | | | |
| 7 | Standardf | 10,60423 | | | | | | | | |
| 8 | Observati | 36 | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | ANOVA | | | | | | | | | |
| 11 | | <i>fg</i> | <i>SK</i> | <i>MK</i> | <i>F</i> | <i>ignifikans F</i> | | | | |
| 12 | Regressio | 6 | 623,9586 | 103,9931 | 0,924797 | 0,491823 | | | | |
| 13 | Residual | 29 | 3261,041 | 112,4497 | | | | | | |
| 14 | I alt | 35 | 3885 | | | | | | | |
| 15 | | | | | | | | | | |
| 16 | | <i>Koefficientet</i> | <i>standardfe</i> | <i>t-stat</i> | <i>P-værdi</i> | <i>Nedre 95%</i> | <i>Øvre 95%</i> | <i>ledre 95,0%</i> | <i>Øvre 95,0%</i> | |
| 17 | Skæring | 0,141819 | 31,86438 | 0,004451 | 0,996479 | -65,0281 | 65,31179 | -65,0281 | 65,31179 | |
| 18 | Pris | 0,000287 | 0,000318 | 0,903362 | 0,373777 | -0,00036 | 0,000937 | -0,00036 | 0,000937 | |
| 19 | Alder | -3,82888 | 3,20346 | -1,19523 | 0,241679 | -10,3807 | 2,722933 | -10,3807 | 2,722933 | |
| 20 | Kørte km | 0,000153 | 0,000123 | 1,24006 | 0,224894 | -9,9E-05 | 0,000405 | -9,9E-05 | 0,000405 | |
| 21 | 5 dørs | -3,9056 | 4,655995 | -0,83883 | 0,408425 | -13,4282 | 5,616981 | -13,4282 | 5,616981 | |
| 22 | Metallak | 0,167774 | 3,995471 | 0,041991 | 0,966794 | -8,00388 | 8,33943 | -8,00388 | 8,33943 | |
| 23 | Øst for | -3,81987 | 4,217221 | -0,90578 | 0,372518 | -12,4451 | 4,80532 | -12,4451 | 4,80532 | |
| 24 | | | | | | | | | | |
| 25 | | | | | | | | | | |
| 26 | | | | | | | | | | |