Example **Advertising. sav**

a) $\boxed{\text{Revenue}} \approx b_0 + b_1 \cdot \boxed{\begin{array}{c}\text{Television}\\\text{advertising}\end{array}}$

$b_0 = 88.638$
$b_1 = 1.604$

b) $\boxed{\begin{array}{c}\text{Re-}\\\text{ve-}\\\text{nue}\end{array}} \approx b_0 + b_1 \cdot \boxed{\begin{array}{c}\text{Telev.}\\\text{advert.}\end{array}} + b_2 \cdot \boxed{\begin{array}{c}\text{Newsp.}\\\text{adv.}\end{array}}$

$b_0 = 83.230$
$b_1 = 2.290$
$b_2 = 1.301$

c) no

1.604 is an estimate of the change in the Revenue for a one-unit (1000 €) change in the TV-Advertising; this means adding 1000 € more in TV-Advertising will cause an increase of 1604 € of the Revenue.

c) (continued)   Advertising.sav

2.290 is an estimate of the expected increase (in 1000 €) in the revenue corresponding to an increase of 1000 € of the TV-advertising when the Newspaper-advertising costs are held constant.

d) $83.230 + 2.290 \cdot 3.5 + 1.301 \cdot 1.8 \approx 93.6$

$\approx 93\,600\ €$

e) $R = 0.959$ strong   correlation

$3.5 \in [2.0; 5.0]$
$1.8 \in [1.5; 4.2]$ $\Bigg\}$ => 93.6 is an interpolation

strong correlation plus interpolation generate reliable predicted values