Subject: Re: significance of a linear regression
Posted by Kenneth Bowman on Sat, 07 Apr 2007 15:39:59 GMT
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In article <1175936871.328589.124530@b75g2000hsg.googlegroups.com>,
"jochem.verelst@gmail.com" <jochem.verelst@gmail.com> wrote:

> Though, I already figured out the CORRELATE function and keyword.
> However, this is not exactly what i meant. Although it is recognized
> that the R-square statistic is a better measure of the strength of
> relationship, from the F-test, at least in SPSS, the significance
> value (p) can be calculated. When it is smaller than 0.05, then the
> variation explained by the model is not due to chance. I wish to
> calculate this significance because then I have an automated threshold
> to decide whether a relationship is valid.
>
> Hopefully there is an easy way to calculate the significance.

It is, perhaps, unfortunate that REGRESS or CORRELATE do not compute the
statistical significances via keywords, but you can test the hypothesis
that rho = 0 by using the fact that r*SQRT(n-2)/SQRT(1.0 - r^2) follows
the t-distribution with n-2 degrees of freedom.

Here's a web page that you can use to check your calculation

http://www.met.rdg.ac.uk/cag/stats/corr.html

Ken Bowman