Test for Two Variances (ANOVA)

We try to test if there is difference in salary variation between two companies at significance level 0.05.
There were randomly selected 30 employees in company A on different positions and 25 employees in company B on equivalent positions (n_1=30, n_2=25).
The average salary in company A was x_1=56K with standard deviation s_1=8K.
The average salary in company B was x_2=52K with standard deviation s_2=5K.

The null hypothesis:
there is no difference between mean salary variances in these two companies.
Ho: $\sigma 1^2 = \sigma 2^2$

The alternative hypothesis:
variance of mean salary in company A is higher than in company B.
Ha: $\sigma 1^2 > \sigma 2^2$

This is Right-Tailed test for two variances.

Step 1. Test statistics is: $F = \frac{s_1^2}{s_2^2} = \frac{8^2}{5^2} = 2.56$

Step 2. Determine p-value for this test. To find p-value in Right-Tailed F-Distribution we can use Excel Statistics function FDIST(x, df_1, df_2)
For x we should enter 2.56, df_1= 30-1 = 29, df_2 = 25-1 = 24
p-value = F.DIST.RT(2.56, 29,24) = 0.011

Step 3. p-value 0.011 is less than significance level 0.05 and we reject Ho, meaning: variance of mean salary in company A is higher than in company B.