Function 'ols_reg'

March 10, 2020

Type   Function

Title   'ols_reg'

Version   0.1.0

Date   2020-03-10

Author Amir Ranjuriheravi

Description   The 'ols_reg' function is a user-friendly interface to execute regression models based on Python programming language. It works with both CSV and XLSX file formats and can handle up to five covariates in the model. For researchers who have little programming skills in Python, 'ols_reg' provides an easy-to-use mathematical modelling function. In the case needed, the function can be customized with the project requirements of individuals. The outputs of the function would be ready for publication.

'ols_reg' function inputs

ols_reg (filename, target, covariates, alpha, exxcel)

filename	a compulsory *String* input w/o any default
target	a compulsory *String* input w/o any default
covariates	a compulsory *String* input w/o any default
alpha	an optional *Double* input with default a default of 0.05
excel	an optional *Boolean* input with default a default of FALSE

1. filename

1.1 The 'ols_reg' function has been defined to work with only the name of CSV or XLSX formats, so a user must input only the name of her file without mentioning to the format ('name', not 'name.csv').

1.2 The name of the file should be inside ' ' or " " signs. In other words, it has to be in the str type ("name", not name).

1.3 As the function takes only the name of your files, it is obvious that the directory of the file must be the same with your python editor directory.

1.4 To know how the function will differentiate between CSV and XLSX formats, please read the last part, especially if you want to work with XLSX files.

2. target (dependent variable)

2.1 You have to determine which variable of your dataset will be the target of the estimation. (It is one of your columns in your dataset) 2_2: Your target variable should be inside ' ' or " " signs. In other words, it has to be in the str type ("name", not name).

3. covariates (independent variables)

3.1 You have to specify your independent variables inside a list []. Even if you have only one independent variable, you must put it inside a list.

(['variable1', 'variable2'] or ['variable1'] not 'variable1')

3.2 It is possible to specify multiple variables up to five.

4. alpha

4.1 If you want to test your estimated parameters at any level other than 0.95, you have to specify the proper standard by changing the alpha.

5. exxcel

5.1 The predefined exxcel value is for importing a CSV file, so if you are managing an XLSX file, you must change its value to 1.