SOFT REGRESSION vs LINEAR REGRESSION

Arthur Yosef, Eli Shnaider and Nava Haruvy

Abstract

One of the most widely used statistical method for analyzing categorical outcome variables is linear regression. The Multiple Linear Regression (MLR) is a widely applied modeling tool. In our article, we perform a comparison of the traditional MLR tool vs Soft Regression. Soft Regression is a modeling tool that originated within a field of computational intelligence and is designed in particular for situations of severe levels of uncertainty where it is impossible to adhere to all the strict requirements needed to attain the desired level of reliability by MLR. We are attempting to compare and contrast the two methods using both: formal mathematical comparison as well as a case study example.