

SAS HATCO Multiple Regression Analysis – HW

Perform a Multiple Regression Analysis paralleling the HBAT analysis performed in the textbook and in class, but now use the HATCO dataset (see HATCO_X1-X14_Tabs data file).

Include the following analyses:

- § Consider the overall general Model $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7$
- § Perform a Correlation Analysis
- § Fit and Analyze the best single independent (simple) regression analysis
- § Perform a Stepwise Regression Analysis to select the best subset model using Alpha = 0.05
- § Perform a Full Model (Confirmatory) Regression Analysis using Alpha = 0.05
- § Using the best subset from the Stepwise Regression Analysis now include variable X8 (Firm Size) and analyze its effect and the new resultant model
- § Analyze and Discuss the Multiple Regression Analysis Assumptions, e.g., Linearity, Normality, Homoscedasticity, and Independence using Residual and other Graphical/Statistical measures and tests for all Model Analyses
- § Similarly Analyze and Discuss any Influential observations with recommendations, as well as the Model's Multicollinearity.

Provide a brief 2-3 page management summary including key selected results along with the SAS program and output as an appendix.

Please let me know if any questions.