

The A Priori Procedure (APP) for Estimating Standardized Regression Coefficients in Multiple Linear Model with Skew Errors

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Abstract : Researchers in the social sciences often conduct multiple regression analyses with the goal of obtaining regression coefficients. The hope is that the sample regression coefficients will be good estimates of corresponding population regression coefficients. The larger the sample size, the better the sample regression coefficients estimate corresponding population regression coefficients, but it is not clear how large the sample size needs to be to obtain trustworthy estimates. The a priori procedure (see Traffimow (2019) for a review) was devised to address this issue, in general, and Tong et al. (2022)} provided an application to regression coefficients. However, a limitation of the Tong et al. (2022) work was the necessity to assume multivariate normality. The present work addresses the limitation with an expansion to multivariate skew normality.