Evaluating response based segmentation in PLS path modeling

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Abstract

Several techniques have emerged for identifying segments in Partial Least Squares. Among these are FIMIX-PLS, PLS-TPM and REBUS-PLS. This study focuses on the latest development, REBUS-PLS, and the performance of this algorithm conditioned on the following five factors: number of segments, root mean squared difference between local models, indicator reliability, structural model specification error and the number of manifest indicators in each block. The study shows that overall the REBUS-PLS algorithm is able to find the solution when the reliability of the indicators is high and the structural model specification error is low. These two factors are thus the ones that truly define the quality of a REBUS-PLS solution, although the other factors also play a role.

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