A FACTOR STRUCTURE WITH MEANS CONFIRMATORY FACTOR ANALYTIC APPROACH TO MULTITRAIT-MULTIMETHOD MODELS

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ABSTRACT

A factor structure with means (FSM) approach to multitrait – multimethod (MTMM) models is proposed in an attempt to remedy identification problems inherent in traditional approaches. In an example data set, FSM models with and without scaling factors correcting for inappropriate measurement level assumptions converged, suggesting the model was identified. Significant improvements in model fit were achieved via inclusion of the scaling factors, indicating erroneous measurement level assumptions are detrimental to model fit. Although the proposed FSM model is a useful alternative to traditional MTMM models, it must be evaluated relative to alternative forms of the model that may be suggested by theory or modification indices. In this example, modification indices indicated an unmodeled source of systematic variance within trait-specific method units. Thus, future research should explore models that include trait-specific method factors rather than general method factors. Models allowing for multidimensional method effects or second-order factors should also be examined.