How to specify, estimate, and validate higher-order constructs in PLS-SEM

ABSTRACT

Higher-order constructs, which facilitate modeling a construct on a more abstract higher-level dimension and its more concrete lower-order subdimensions, have become an increasingly visible trend in applications of partial least squares structural equation modeling (PLS-SEM). Unfortunately, researchers frequently confuse the specification, estimation, and validation of higher-order constructs, for example, when it comes to assessing their reliability and validity. Addressing this concern, this paper explains how to evaluate the results of higher-order constructs in PLS-SEM using the repeated indicators and the two-stage approaches, which feature prominently in applied social sciences research. Focusing on the reflective-reflective and reflective-formative types of higher-order constructs, we use the well-known corporate reputation model example to illustrate their specification, estimation, and validation. Thereby, we provide the guidance that scholars, marketing researchers, and practitioners need when using higher-order constructs in their studies.

Keyword: Hierarchical component models; Higher-order constructs; Partial least squares; Path modelling; PLS-SEM; Second-order constructs