Dipartimento di Statistica e Metodi Quantitativi

Mercoledì 21 ottobre 2015 ore 14.30

Sala del Consiglio della Scuola di Economia e Statistica
(edificio U7, 4° piano, stanza 4064)
Via Bicocca degli Arcimboldi, 8 – 20126 Milano

"Non symmetrical approach to component-based SEM"

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Abstract

Structural Equation Modeling (SEM) is a multivariate analysis technique that allows us to analyze relationships among several blocks of observed variables.
PLS-PM has some inconsistencies in terms of coherence with the direction of the relationships specified in the structural model (i.e., the dependence relationships between LVs).
PLSPM algorithm analyzes relationships between blocks symmetrically and misses to distinguish between dependent and explanatory blocks. As a consequence, there is often a difference between what PLS-PM wants to model and what is actually computed by the PLSPM algorithm.
We propose a new algorithm that takes into account explicitly the directions of relationships in the structural model, based on the maximization of the ex- plained variance of the MVs of the endogenous blocks by the components of the explanatory blocks.
The new approach is more suitable for prediction purposes. As a measure of the quality of the global model we propose a goodness of prediction index based on redundancy criterion and prediction capability.

Tutti gli interessati sono invitati a partecipare

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