Seminar Title: Introduction to Structural Equation Modeling with Mplus

Date: 2016.12.15

Time:9:30-16:50

Venue: National Taiwan University, College Of Management,Building 1,Jhong Guang Hall 202

Seminar Description

This 1-day workshop introduces Mplus to the participants. At the conclusion of the workshop, participants will be able to understand the basic concepts behind Structural Equation Modeling (SEM) and to estimate structural equation models with Mplus. Specific topics include (a) confirmatory factor analysis with measurement model for testing convergent validity and discriminant validity, (b) regression models and path analysis, (c) application of full structural model with latent variables, (d) multiple-group analysis and measurement invariance, (e) missing data, and (f) controlling for nested effects. Hands-on exercises will be provided.

Participants are expected to have basic knowledge in structural equation modeling.

Suggested reading

- Cheung, G. W. &. Rensvold, R. B. (2001). The effects of model parsimony and sampling error on the fit of structural equation models. *Organizational Research Methods, 4*: 235-263.
- Fornell, C. and Larcker, F. (1981). Evaluating structural equation models with unobserved variables and measurement error. *Journal of Marketing Research, 18*: 39-50.
- Hu, L. and Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6(1)*: 1-55.
- Muthén, L.K. and Muthén, B.O. (1998-2015). *Mplus User's Guide* (Seventh Edition). Los Angeles, CA: Muthén and Muthén, Chapters 5 and 15.

Seminar Title: Mediation, Moderation, and Moderated-Mediation Analysis in Behavioral Research: Regression versus Structural Equation Modeling

Date: 2016.12.16

Time: 9:30-16:50

Venue: National Taiwan University, College Of Management,Building 1,Jhong Guang Hall 202

Seminar Description

Mediation studies are very important in answering the "why" and "how" questions of organizational phenomena and moderation studies are very important in answering the "when" question of organizational phenomena. Researchers have been continuously searching for the best statistical test for mediation and moderation effects. In this seminar, Professor Cheung will first review the advantages of testing mediation and moderation effects using structural equation modeling with latent variables over using regression with observed variables. Then he will introduce various mediation hypotheses that can be examined in organizational studies, including the significance of specific mediation effect, comparison of the strength of two mediation effects, comparison of the strength between mediation effect and direct effect, and comparison of the strength of mediation effects across groups. Finally, he will demonstrate how to conduct moderation and moderated-mediation analyses with structural equation modeling using Mplus. Hands-on training in the use of Mplus for testing each mediation and moderation hypothesis will be provided.

Participants are expected to have basic knowledge in structural equation modeling and Mplus syntax rules.

Suggested reading

- Cheung, G. W. and Lau, R. S. (In Press), "Accuracy of parameter estimates and confidence intervals in moderated mediation models: A comparison of regression and latent moderated structural equations", *Organizational Research Methods.*
- Lau, R. S. and Cheung, G. W. (2012), "Estimating and comparing specific mediation effects in complex latent variable models", *Organizational Research Methods,* 15, 3-16.
- Cheung, G. W. and Lau, R. S. (2008), "Testing mediation and suppression effects of latent variables: Bootstrapping with structural equation models", *Organizational Research Methods*, 11(2), 296-325.