

Contents

1	Introduction to Meta-Analysis and Structural Equation Modeling . . .	1
1.1	What Is Meta-Analysis?	1
1.1.1	Issues in Meta-Analysis	2
1.1.2	Statistical Analysis	3
1.2	What Is SEM?	4
1.2.1	Path Analysis	4
1.2.2	Model Fit	7
1.2.3	Factor Analysis	9
1.3	Why Should You Combine SEM and MA?	12
	References	13
2	Methods for Meta-Analytic Structural Equation Modeling	15
2.1	Introduction	15
2.2	Univariate Methods	16
2.3	Multivariate Methods	17
2.3.1	The GLS Method	17
2.3.2	Two Stage Structural Equation Modeling (TSSEM)	19
	References	22
3	Heterogeneity	25
3.1	Introduction	25
3.2	Testing the Significance of Heterogeneity	26
3.3	The Size of the Heterogeneity	27
3.4	Random Effects Analysis or Explaining Heterogeneity	28
3.4.1	Random Effects MASEM	28
3.4.2	Subgroup Analysis	30
	References	31
4	Issues in Meta-Analytic Structural Equation Modeling	33
4.1	Software to Conduct MASEM	33
4.2	Fit-Indices in TSSEM	35

- 4.3 Missing Correlations in TSSEM 35
- 4.4 The ML-Approach to MASEM 36
- References 37
- 5 Fitting a Path Model with the Two-Stage Approach 39**
 - 5.1 Introduction 39
 - 5.2 Preparing the Data 40
 - 5.3 Fixed Effects Analysis 42
 - 5.4 Random Effects Analysis 45
 - 5.5 Random Effects Subgroup Analysis 53
 - References 56
- 6 Fitting a Factor Model with the Two-Stage Approach. 57**
 - 6.1 Introduction 57
 - 6.2 Preparing the Data 58
 - 6.3 Fixed Effects Analysis 59
 - 6.4 Random Effects Analysis 61
 - References 69
- Appendix A: Model Implied Covariance Matrix of the Example
Path Model 71**
- Appendix B: Fitting a Path Model to a Covariance Matrix
with OpenMx 73**
- Appendix C: Model Implied Covariance Matrix of the Example
Factor Model. 81**
- Appendix D: Fitting a Factor Model to a Covariance Matrix
with OpenMx 83**



<http://www.springer.com/978-3-319-27172-9>

Meta-Analytic Structural Equation Modelling

Jak, S.

2015, VIII, 88 p. 5 illus. in color., Softcover

ISBN: 978-3-319-27172-9