

DATE: 3/24/2018
TIME: 15:13

L I S R E L 8.72

BY

Universitas
Karl G. Jöreskog & Dag Sörbom

Esa Unggul

This program is published exclusively by
Scientific Software International, Inc.
7383 N. Lincoln Avenue, Suite 100
Lincolnwood, IL 60712, U.S.A.

Phone: (800)247-6113, (847)675-0720, Fax: (847)675-2140
Copyright by Scientific Software International, Inc., 1981-2005
Use of this program is subject to the terms specified in the
Universal Copyright Convention.
Website: www.ssicentral.com

The following lines were read from file C:\Users\organizer\Desktop\LISREL
rina\Path.SPJ:

Raw Data from file 'C:\Users\organizer\Desktop\LISREL rina\Preliis Rina.psf'
Latent Variables KT KO SK PP KK
Relationships
KT1-KT4=KT
KO1-KO4=KO
SK1-SK3=SK
PP1-PP3=PP
KK1-KK3=KK
Path Diagram
End of Problem

Sample Size = 200

Covariance Matrix

	KT1	KT2	KT3	KT4	KO1	KO2
KT1	0.91					
KT2	0.43	0.59				
KT3	0.63	0.43	0.90			
KT4	0.43	0.59	0.43	0.59		
KO1	0.12	0.19	0.04	0.19	1.16	
KO2	0.63	0.32	0.45	0.32	0.05	0.90
KO3	0.25	0.40	0.32	0.40	0.23	0.43
KO4	0.44	0.33	0.66	0.33	0.13	0.60
SK1	0.25	0.40	0.32	0.40	0.23	0.43
SK2	0.23	0.40	0.30	0.40	0.20	0.45
SK3	-0.01	0.13	0.01	0.13	0.95	0.21

PP1	0.11	0.06	0.02	0.06	0.04	-0.17
PP2	0.08	0.12	0.02	0.12	0.04	-0.02
PP3	0.04	-0.01	0.06	-0.01	0.01	-0.14
KK1	0.08	0.12	0.02	0.12	0.04	-0.02
KK2	0.08	0.12	0.02	0.12	0.04	-0.02
KK3	0.04	-0.01	0.06	-0.01	0.01	-0.14

Covariance Matrix

	KO3	KO4	SK1	SK2	SK3	PP1
KO3	0.66					
KO4	0.50	0.92				
SK1	0.66	0.50	0.66			
SK2	0.64	0.48	0.64	0.68		
SK3	0.28	0.11	0.28	0.30	1.14	
PP1	-0.12	-0.17	-0.12	-0.14	-0.09	0.87
PP2	-0.07	-0.07	-0.07	-0.07	-0.02	0.37
PP3	-0.12	-0.17	-0.12	-0.13	-0.02	0.66
KK1	-0.07	-0.07	-0.07	-0.07	-0.02	0.37
KK2	-0.07	-0.07	-0.07	-0.07	-0.02	0.37
KK3	-0.12	-0.17	-0.12	-0.13	-0.02	0.66

Covariance Matrix

	PP2	PP3	KK1	KK2	KK3
PP2	0.53				
PP3	0.45	0.93			
KK1	0.53	0.45	0.53		
KK2	0.53	0.45	0.53	0.53	
KK3	0.45	0.93	0.45	0.45	0.93

Number of Iterations = 35

LISREL Estimates (Maximum Likelihood)

Measurement Equations

$$\begin{aligned}
 &KT1 = 0.56*KT, \text{ Errorvar.} = 0.60, R^2 = 0.34 \\
 &\quad (0.062) \qquad (0.060) \\
 &\quad 9.06 \qquad 9.97 \\
 \\
 &KT2 = 0.77*KT, \text{ Errorvar.} = 0.00059, R^2 = 1.00 \\
 &\quad (0.038) \qquad (0.0013) \\
 &\quad 19.93 \qquad 0.45 \\
 \\
 &KT3 = 0.56*KT, \text{ Errorvar.} = 0.59, R^2 = 0.34 \\
 &\quad (0.061) \qquad (0.059) \\
 &\quad 9.10 \qquad 9.97
 \end{aligned}$$

KT4 = 0.77*KT, Errorvar.= 0.00059, R² = 1.00
(0.038) (0.0013)
19.93 0.45

KO1 = 0.28*KO, Errorvar.= 1.08 , R² = 0.066
(0.075) (0.11)
3.69 9.97

KO2 = 0.53*KO, Errorvar.= 0.62 , R² = 0.32
(0.062) (0.062)
8.62 9.97

KO3 = 0.81*KO, Errorvar.= 0.00085, R² = 1.00
(0.041) (0.0019)
19.92 0.45

KO4 = 0.62*KO, Errorvar.= 0.54 , R² = 0.41
(0.061) (0.054)
10.18 9.97

SK1 = 0.81*SK, Errorvar.= 0.00071 , R² = 1.00
(0.041) (0.00063)
19.93 1.12

SK2 = 0.79*SK, Errorvar.= 0.055 , R² = 0.92
(0.043) (0.0055)
18.39 9.92

SK3 = 0.35*SK, Errorvar.= 1.02 , R² = 0.11
(0.074) (0.10)
4.70 9.97

PP1 = 0.51*PP, Errorvar.= 0.61 , R² = 0.30
(0.061) (0.061)
8.40 9.97

PP2 = 0.73*PP, Errorvar.= 0.00064, R² = 1.00
(0.037) (0.0014)
19.92 0.47

PP3 = 0.62*PP, Errorvar.= 0.55 , R² = 0.41
(0.061) (0.055)
10.15 9.97

KK1 = 0.73*KK, Errorvar.= 0.00053, R² = 1.00
(0.037) (0.00)
19.93 6.31

KK2 = 0.73*KK, Errorvar.= 0.00053, R² = 1.00
(0.037) (0.00)
19.93 6.31

KK3 = 0.62*KK, Errorvar.= 0.55 , R² = 0.41
(0.061) (0.055)

10.15

9.97

Correlation Matrix of Independent Variables

	KT	KO	SK	PP	KK
KT	1.00				
KO	0.64 (0.04) 15.48	1.00			
SK	0.64 (0.04) 15.49	1.00 (0.00) 668.26	1.00		
PP	0.22 (0.07) 3.18	-0.11 (0.07) -1.58	-0.11 (0.07) -1.58	1.00	
KK	0.22 (0.07) 3.18	-0.11 (0.07) -1.58	-0.11 (0.07) -1.58	1.00 (0.00) 773.69	1.00

Goodness of Fit Statistics

Degrees of Freedom = 109

Minimum Fit Function Chi-Square = 2168.38 (P = 0.0)

Normal Theory Weighted Least Squares Chi-Square = 950.10 (P = 0.0)

Estimated Non-centrality Parameter (NCP) = 841.10

90 Percent Confidence Interval for NCP = (746.34 ; 943.31)

Minimum Fit Function Value = 10.90

Population Discrepancy Function Value (F0) = 4.23

90 Percent Confidence Interval for F0 = (3.75 ; 4.74)

Root Mean Square Error of Approximation (RMSEA) = 0.20

90 Percent Confidence Interval for RMSEA = (0.19 ; 0.21)

P-Value for Test of Close Fit (RMSEA < 0.05) = 0.00

Expected Cross-Validation Index (ECVI) = 5.22

90 Percent Confidence Interval for ECVI = (4.74 ; 5.73)

ECVI for Saturated Model = 1.54

ECVI for Independence Model = 24.82

Chi-Square for Independence Model with 136 Degrees of Freedom = 4904.64

Independence AIC = 4938.64

Model AIC = 1038.10

Saturated AIC = 306.00

Independence CAIC = 5011.72

Model CAIC = 1227.22

Saturated CAIC = 963.64

Normed Fit Index (NFI) = 0.56
Non-Normed Fit Index (NNFI) = 0.46
Parsimony Normed Fit Index (PNFI) = 0.45
Comparative Fit Index (CFI) = 0.57
Incremental Fit Index (IFI) = 0.57
Relative Fit Index (RFI) = 0.45

Critical N (CN) = 14.42

Root Mean Square Residual (RMR) = 0.12
Standardized RMR = 0.13
Goodness of Fit Index (GFI) = 0.64
Adjusted Goodness of Fit Index (AGFI) = 0.50
Parsimony Goodness of Fit Index (PGFI) = 0.46

The Modification Indices Suggest to Add an Error Covariance

Between	and	Decrease in Chi-Square	New Estimate
KT3	KT1	58.9	0.32
KO2	KT1	95.6	0.42
KO2	KT3	22.6	0.20
KO4	KT1	34.3	0.24
KO4	KT3	101.9	0.40
KO4	KO2	45.3	0.28
SK1	KO3	9.6	0.03
SK3	KO1	131.1	0.85
PP3	KT3	9.0	0.12
PP3	PP1	71.4	0.35
KK3	KT3	9.0	0.12
KK3	PP1	71.4	0.35
KK3	PP3	198.4	0.55

Time used: 0.062 Seconds