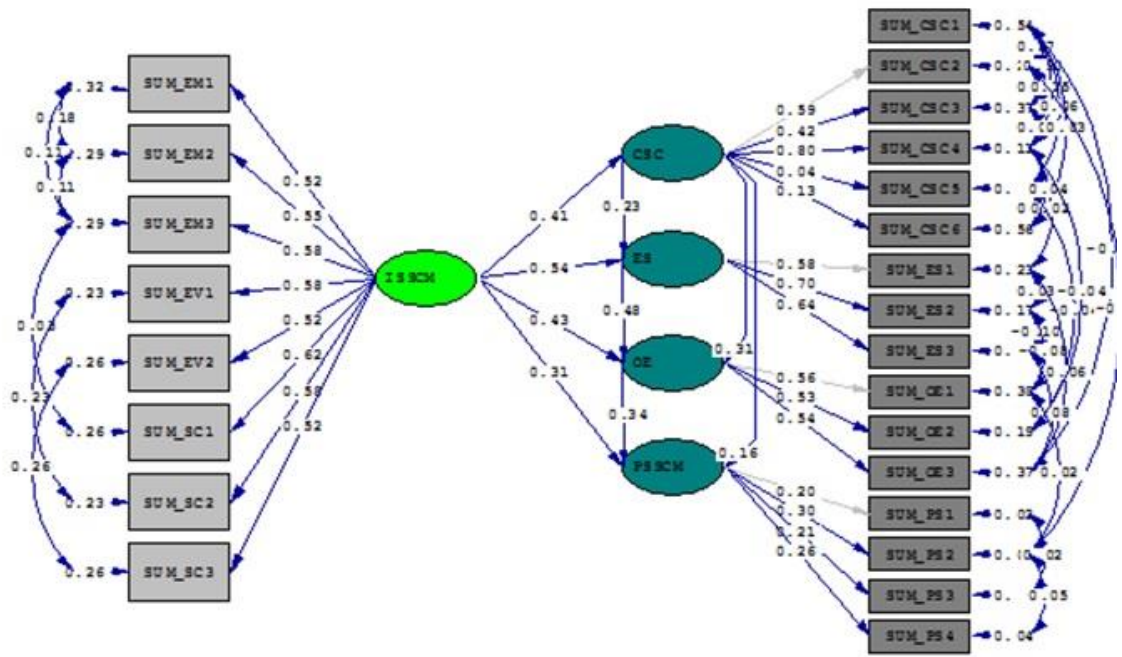


ภาคผนวก ฉ

ภาพรูปแบบที่ 1 และคำสั่งสำหรับการตรวจสอบความตรงของรูปแบบ
ความสัมพันธ์เชิงสาเหตุตามสมมติฐานข้อ 1-6 (รูปแบบที่ 1)



Chi-Square=319.80, df=216, P-value=0.0635, RMSEA=0.025

Time used: 0.109 Seconds

DATE: 7/ 8/2017

TIME: 20:47

L I S R E L 8.52

BY

Karl G. Jöreskog & Dag Sörbom

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TI PSSCM

Covariance Matrix

	SUM_CSC1	SUM_CSC2	SUM_CSC3	SUM_CSC4	SUM_CSC5	SUM_CSC6
	-----	-----	-----	-----	-----	-----
SUM_CSC1	0.55					
SUM_CSC2	0.38	0.51				
SUM_CSC3	0.39	0.36	0.54			
SUM_CSC4	0.29	0.32	0.34	0.49		
SUM_CSC5	0.06	0.04	0.03	0.02	0.55	
SUM_CSC6	0.04	0.06	0.03	0.01	0.43	0.58
SUM_ES1	0.19	0.20	0.19	0.23	0.07	0.07
SUM_ES2	0.23	0.22	0.24	0.25	0.09	0.06
SUM_ES3	0.21	0.21	0.22	0.24	0.07	0.10
SUM_OE1	0.22	0.28	0.25	0.26	0.11	0.12
SUM_OE2	0.25	0.27	0.22	0.23	0.02	0.05
SUM_OE3	0.18	0.23	0.21	0.26	0.10	0.13
SUM_PS1	0.00	0.01	0.01	0.00	-0.01	0.00
SUM_PS2	0.00	0.00	0.01	0.01	-0.01	0.01
SUM_PS3	0.02	0.03	0.03	0.03	-0.02	0.00
SUM_PS4	0.00	0.00	0.02	0.01	-0.02	0.00
SUM_EM1	0.25	0.23	0.21	0.24	0.08	0.07
SUM_EM2	0.26	0.28	0.24	0.25	0.09	0.08
SUM_EM3	0.27	0.30	0.23	0.27	0.08	0.06
SUM_EV1	0.29	0.26	0.29	0.26	0.02	0.00
SUM_EV2	0.31	0.29	0.24	0.25	0.06	0.04
SUM_SC1	0.25	0.26	0.23	0.28	0.02	0.06
SUM_SC2	0.29	0.26	0.29	0.26	0.02	0.00
SUM_SC3	0.31	0.29	0.24	0.25	0.06	0.04

Covariance Matrix

	SUM_ES1	SUM_ES2	SUM_ES3	SUM_OE1	SUM_OE2	SUM_OE3
	-----	-----	-----	-----	-----	-----
SUM_ES1	0.51					
SUM_ES2	0.37	0.59				
SUM_ES3	0.31	0.27	0.51			
SUM_OE1	0.24	0.21	0.29	0.63		
SUM_OE2	0.24	0.28	0.28	0.32	0.49	
SUM_OE3	0.29	0.26	0.33	0.33	0.29	0.65
SUM_PS1	0.00	0.00	0.00	0.00	0.01	-0.01
SUM_PS2	-0.01	0.00	0.00	0.02	-0.01	-0.02
SUM_PS3	0.01	0.02	0.01	0.00	0.02	-0.01
SUM_PS4	-0.01	-0.01	-0.01	0.00	0.00	-0.02
SUM_EM1	0.19	0.23	0.20	0.25	0.24	0.19
SUM_EM2	0.22	0.27	0.22	0.31	0.25	0.20
SUM_EM3	0.22	0.25	0.22	0.29	0.27	0.24
SUM_EV1	0.18	0.28	0.20	0.25	0.26	0.24
SUM_EV2	0.19	0.26	0.18	0.23	0.25	0.18
SUM_SC1	0.25	0.28	0.26	0.27	0.29	0.33
SUM_SC2	0.18	0.28	0.20	0.25	0.26	0.24

SUM_SC3 0.19 0.26 0.18 0.23 0.25 0.18

Covariance Matrix

	SUM_PS1	SUM_PS2	SUM_PS3	SUM_PS4	SUM_EM1	SUM_EM2
SUM_PS1	0.06					
SUM_PS2	0.05	0.12				
SUM_PS3	0.05	0.05	0.14			
SUM_PS4	0.05	0.07	0.05	0.10		
SUM_EM1	0.02	0.02	0.03	0.02	0.59	
SUM_EM2	0.01	0.03	0.03	0.02	0.46	0.59
SUM_EM3	0.01	0.01	0.03	0.01	0.41	0.42
SUM_EV1	0.01	0.01	0.02	0.02	0.29	0.28
SUM_EV2	0.01	0.02	0.02	0.03	0.28	0.30
SUM_SC1	0.00	0.02	0.02	0.01	0.33	0.34
SUM_SC2	0.01	0.01	0.02	0.02	0.29	0.28
SUM_SC3	0.01	0.02	0.02	0.03	0.28	0.30

Covariance Matrix

	SUM_EM3	SUM_EV1	SUM_EV2	SUM_SC1	SUM_SC2	SUM_SC3
SUM_EM3	0.62					
SUM_EV1	0.32	0.56				
SUM_EV2	0.31	0.32	0.54			
SUM_SC1	0.33	0.38	0.29	0.64		
SUM_SC2	0.32	0.56	0.32	0.38	0.56	
SUM_SC3	0.31	0.32	0.54	0.29	0.32	0.54

TI PSSCM

Number of Iterations = 11

LISREL Estimates (Maximum Likelihood)

Measurement Equations

SUM_CSC1 = 0.49*CSC, Errorvar.= 0.54 , R² = 0.32
 (0.059) (0.038)
 8.89 14.27

SUM_CSC2 = 0.59*CSC, Errorvar.= 0.24 , R² = 0.40
 (0.067) (0.022)
 9.77 11.07

SUM_CSC3 = 0.42*CSC, Errorvar.= 0.37 , R² = 0.18
 (0.058) (0.031)
 7.17 12.21

SUM_CSC4 = 0.80*CSC, Errorvar.= 0.11 , R² = 0.73
 (0.079) (0.027)
 10.11 4.04

SUM_CSC5 = 0.045*CSC, Errorvar.= 0.54 , R² = 0.0017
 (0.060) (0.038)
 0.75 14.22

SUM_CSC6 = 0.13*CSC, Errorvar.= 0.56 , R² = 0.013
 (0.067) (0.040)
 1.91 13.99

SUM_ES1 = 0.58*ES, Errorvar.= 0.23 , R² = 0.55
 (0.060) (0.024)
 13.11 9.80

SUM_ES2 = 0.70*ES, Errorvar.= 0.17 , R² = 0.70
 (0.050) (0.041)
 14.01 4.31

SUM_ES3 = 0.64*ES, Errorvar.= 0.17 , R² = 0.67
 (0.049) (0.024)
 13.01 6.96

SUM_OE1 = 0.56*OE, Errorvar.= 0.30 , R² = 0.53

	(0.055)	(0.026)
	12.56	11.44
SUM_OE2 = 0.53*OE, Errorvar.= 0.19 , R ² = 0.62	(0.036)	(0.018)
	14.69	10.42
SUM_OE3 = 0.54*OE, Errorvar.= 0.37 , R ² = 0.46	(0.042)	(0.029)
	12.81	12.47
SUM_PS1 = 0.20*PSSCM, Errorvar.= 0.023 , R ² = 0.60	(0.056)	(0.0024)
	11.77	9.50
SUM_PS2 = 0.30*PSSCM, Errorvar.= 0.041 , R ² = 0.66	(0.021)	(0.0050)
	14.59	8.09
SUM_PS3 = 0.21*PSSCM, Errorvar.= 0.10 , R ² = 0.28	(0.018)	(0.0079)
	11.87	12.68
SUM_PS4 = 0.26*PSSCM, Errorvar.= 0.040 , R ² = 0.60	(0.018)	(0.0042)
	14.41	9.61
SUM_EM1 = 0.52*ISSCM, Errorvar.= 0.32 , R ² = 0.46	(0.036)	(0.026)
	14.44	12.26
SUM_EM2 = 0.55*ISSCM, Errorvar.= 0.29 , R ² = 0.51	(0.035)	(0.024)
	15.52	11.90
SUM_EM3 = 0.58*ISSCM, Errorvar.= 0.29 , R ² = 0.53	(0.037)	(0.026)
	15.76	11.07
SUM_EV1 = 0.58*ISSCM, Errorvar.= 0.23 , R ² = 0.59	(0.033)	(0.020)
	17.43	11.27
SUM_EV2 = 0.52*ISSCM, Errorvar.= 0.26 , R ² = 0.51	(0.033)	(0.022)
	15.63	12.14
SUM_SC1 = 0.62*ISSCM, Errorvar.= 0.26 , R ² = 0.60	(0.036)	(0.023)
	17.46	10.93
SUM_SC2 = 0.58*ISSCM, Errorvar.= 0.23 , R ² = 0.59	(0.033)	(0.020)
	17.43	11.27
SUM_SC3 = 0.52*ISSCM, Errorvar.= 0.26 , R ² = 0.51	(0.033)	(0.022)
	15.63	12.14

Structural Equations

BATA

	CSC	ES	OE
	-----	-----	-----
ES	= 0.23 (0.077) 3.03		
OE	= 0.31 (0.086) 3.55	0.48 (0.081) 5.89	
PSSCM	= 0.16	0.30	0.34

(0.11)	(0.12)	(0.14)
1.40	2.33	2.44

GAMMA

	ISSC

CSC	= 0.41 (0.042) 9.72
ES	= 0.54 (0.063) 8.52
OE	= 0.43 (0.075) 5.73
PSSCM	= 0.31 (0.13) 2.44

Reduced Multiple Correlation Form Equations

CSC	= 0.41*ISSCM, Errorvar.= 0.29, R ² = 0.36 (0.042) 9.70
ES	= 0.63*ISSCM, Errorvar.= 0.45, R ² = 0.47 (0.058) 10.86
OE	= 0.85*ISSCM, Errorvar.= 0.35, R ² = 0.68 (0.064) 13.29
PSSCM	= 0.087*ISSCM, Errorvar.= 0.86, R ² = 0.0088 (0.055) 1.58

Correlation Matrix of Independent Variables

ISSCM

1.00

Covariance Matrix of Latent Variables

	CSC	ES	OE	PSSCM	ISSCM
	-----	-----	-----	-----	-----
CSC	0.46				
ES	0.32	0.84			
OE	0.47	0.77	0.08		
PSSCM	0.04	-0.01	0.02	0.87	
ISSCM	0.41	0.63	0.85	0.09	1.00

Goodness of Fit Statistics

Degrees of Freedom = 216

Minimum Fit Function Chi-Square = 325.51 (P = 0.0595)

Normal Theory Weighted Least Squares Chi-Square = 319.80 (P = 0.0635)

Chi-Square Difference with 1 Degree of Freedom = 7.80 (P = 0.0030)

Estimated Non-centrality Parameter (NCP) = 275.20

90 Percent Confidence Interval for NCP = (214.58 ; 343.54)

Minimum Fit Function Value = 1.39

Population Discrepancy Function Value (F0) = 0.69

90 Percent Confidence Interval for F0 = (0.54 ; 0.86)

Root Mean Square Error of Approximation (RMSEA) = 0.025

90 Percent Confidence Interval for RMSEA = (0.050 ; 0.063)

P-Value for Test of Close Fit (RMSEA < 0.05) = 0.056

Expected Cross-Validation Index (ECVI) = 1.65

90 Percent Confidence Interval for ECVI = (1.50 ; 1.82)

ECVI for Saturated Model = 1.50

ECVI for Independence Model = 40.57

Chi-Square for Independence Model with 276 Degrees of Freedom = 16138.16

Independence AIC = 16186.16

Model AIC = 658.20

Saturated AIC = 600.00

Independence CAIC = 16305.95

Model CAIC = 1072.49

Saturated CAIC = 2097.44

Normed Fit Index (NFI) = 0.97

Non-Normed Fit Index (NNFI) = 0.97

Parsimony Normed Fit Index (PNFI) = 0.76

Comparative Fit Index (CFI) = 0.98

Incremental Fit Index (IFI) = 0.98

Relative Fit Index (RFI) = 0.96

Critical N (CN) = 194.28

Root Mean Square Residual (RMR) = 0.045

Standardized RMR = 0.15

Goodness of Fit Index (GFI) = 0.97

Adjusted Goodness of Fit Index (AGFI) = 0.98

Parsimony Goodness of Fit Index (PGFI) = 0.66

TI PSSCM

Fitted Covariance Matrix

	SUM_CSC1	SUM_CSC2	SUM_CSC3	SUM_CSC4	SUM_CSC5	SUM_CSC6
	-----	-----	-----	-----	-----	-----
SUM_CSC1	0.54					
SUM_CSC2	0.27	0.40				
SUM_CSC3	0.30	0.26	0.45			
SUM_CSC4	0.15	0.22	0.23	0.40		
SUM_CSC5	0.06	0.01	0.01	0.02	0.54	
SUM_CSC6	0.03	0.03	0.02	0.00	0.41	0.57
SUM_ES1	--	0.11	0.08	0.17	0.01	0.02
SUM_ES2	--	0.13	0.09	0.18	0.01	0.03
SUM_ES3	--	0.12	0.09	0.17	0.01	0.03
SUM_OE1	--	0.16	0.11	0.21	0.01	0.03
SUM_OE2	--	0.15	0.11	0.16	-0.03	0.03
SUM_OE3	-0.03	0.15	0.11	0.20	0.01	0.03
SUM_PS1	--	0.00	0.00	0.01	0.00	0.00
SUM_PS2	--	-0.01	0.01	0.01	0.00	0.00
SUM_PS3	--	0.01	0.00	0.01	0.00	0.00
SUM_PS4	--	0.01	0.00	0.01	0.00	0.00
SUM_EM1	--	0.12	0.09	0.17	0.01	0.03
SUM_EM2	--	0.13	0.09	0.18	0.01	0.03
SUM_EM3	--	0.14	0.10	0.19	0.01	0.03
SUM_EV1	--	0.14	0.10	0.19	0.01	0.03
SUM_EV2	--	0.12	0.09	0.17	0.01	0.03
SUM_SC1	--	0.15	0.11	0.20	0.01	0.03
SUM_SC2	--	0.14	0.10	0.19	0.01	0.03
SUM_SC3	--	0.12	0.09	0.17	0.01	0.03

Fitted Covariance Matrix

	SUM_ES1	SUM_ES2	SUM_ES3	SUM_OE1	SUM_OE2	SUM_OE3
	-----	-----	-----	-----	-----	-----
SUM_ES1	0.51					
SUM_ES2	0.37	0.58				
SUM_ES3	0.31	0.28	0.51			
SUM_OE1	0.25	0.22	0.28	0.63		
SUM_OE2	0.24	0.29	0.26	0.32	0.50	
SUM_OE3	0.30	0.29	0.34	0.32	0.31	0.68
SUM_PS1	0.00	0.00	0.00	0.00	0.00	0.00
SUM_PS2	0.00	0.00	0.00	0.02	0.00	0.00
SUM_PS3	0.00	0.00	0.00	0.00	0.00	0.00
SUM_PS4	0.00	0.00	0.00	0.00	0.00	0.00
SUM_EM1	0.19	0.23	0.21	0.25	0.24	0.24
SUM_EM2	0.20	0.24	0.22	0.26	0.25	0.25
SUM_EM3	0.21	0.25	0.23	0.28	0.26	0.26
SUM_EV1	0.21	0.25	0.23	0.28	0.26	0.27
SUM_EV2	0.19	0.23	0.21	0.25	0.24	0.24
SUM_SC1	0.23	0.27	0.25	0.30	0.28	0.29
SUM_SC2	0.21	0.25	0.23	0.28	0.26	0.27
SUM_SC3	0.19	0.23	0.21	0.25	0.24	0.24

Fitted Covariance Matrix

	SUM_PS1	SUM_PS2	SUM_PS3	SUM_PS4	SUM_EM1	SUM_EM2
	-----	-----	-----	-----	-----	-----
SUM_PS1	0.06					
SUM_PS2	0.05	0.12				
SUM_PS3	0.05	0.06	0.14			
SUM_PS4	0.05	0.07	0.05	0.10		
SUM_EM1	0.01	0.01	0.01	0.01	0.59	
SUM_EM2	0.01	0.01	0.01	0.01	0.46	0.59
SUM_EM3	0.01	0.02	0.01	0.01	0.41	0.42
SUM_EV1	0.01	0.02	0.01	0.01	0.30	0.32
SUM_EV2	0.01	0.01	0.01	0.01	0.27	0.29
SUM_SC1	0.01	0.02	0.01	0.01	0.32	0.34
SUM_SC2	0.01	0.02	0.01	0.01	0.30	0.32
SUM_SC3	0.01	0.01	0.01	0.01	0.27	0.29

Fitted Covariance Matrix

	SUM_EM3	SUM_EV1	SUM_EV2	SUM_SC1	SUM_SC2	SUM_SC3
	-----	-----	-----	-----	-----	-----
SUM_EM3	0.62					
SUM_EV1	0.33	0.56				
SUM_EV2	0.30	0.30	0.54			
SUM_SC1	0.33	0.36	0.32	0.64		
SUM_SC2	0.33	0.56	0.30	0.36	0.56	
SUM_SC3	0.30	0.30	0.54	0.32	0.30	0.54

Fitted Residuals

	SUM_CSC1	SUM_CSC2	SUM_CSC3	SUM_CSC4	SUM_CSC5	SUM_CSC6
	-----	-----	-----	-----	-----	-----
SUM_CSC1	0.01					
SUM_CSC2	0.11	0.11				
SUM_CSC3	0.08	0.10	0.09			
SUM_CSC4	0.14	0.10	0.11	0.08		
SUM_CSC5	0.00	0.03	0.02	0.01	0.01	
SUM_CSC6	0.01	0.03	0.01	0.01	0.02	0.01
SUM_ES1	0.19	0.09	0.11	0.06	0.06	0.05
SUM_ES2	0.23	0.09	0.14	0.07	0.08	0.03
SUM_ES3	0.21	0.09	0.13	0.07	0.06	0.08
SUM_OE1	0.22	0.13	0.14	0.05	0.10	0.09
SUM_OE2	0.25	0.12	0.11	0.06	0.05	0.02
SUM_OE3	0.21	0.08	0.11	0.06	0.09	0.10
SUM_PS1	0.00	0.00	0.00	0.00	-0.02	0.00
SUM_PS2	0.00	0.00	0.01	0.00	-0.01	0.01
SUM_PS3	0.02	0.02	0.02	0.02	-0.02	0.00
SUM_PS4	0.00	0.00	0.01	0.00	-0.02	0.00
SUM_EM1	0.25	0.10	0.13	0.07	0.07	0.05
SUM_EM2	0.26	0.15	0.15	0.08	0.08	0.05
SUM_EM3	0.27	0.16	0.14	0.08	0.07	0.03
SUM_EV1	0.29	0.13	0.19	0.07	0.01	-0.03
SUM_EV2	0.31	0.17	0.15	0.09	0.05	0.01
SUM_SC1	0.25	0.11	0.13	0.08	0.01	0.03

SUM_SC2	0.29	0.13	0.19	0.07	0.01	-0.03
SUM_SC3	0.31	0.17	0.15	0.09	0.05	0.01

Fitted Residuals

	SUM_ES1	SUM_ES2	SUM_ES3	SUM_OE1	SUM_OE2	SUM_OE3
SUM_ES1	0.00					
SUM_ES2	0.00	0.00				
SUM_ES3	0.00	0.00	0.00			
SUM_OE1	-0.01	-0.01	0.01	0.00		
SUM_OE2	0.00	-0.01	0.01	-0.01	-0.01	
SUM_OE3	-0.01	-0.03	-0.01	0.01	-0.02	-0.03
SUM_PS1	0.00	0.01	0.00	0.01	0.01	-0.01
SUM_PS2	0.00	0.00	0.00	0.00	0.00	-0.01
SUM_PS3	0.01	0.02	0.01	0.01	0.02	0.00
SUM_PS4	-0.01	0.00	-0.01	0.01	0.00	-0.02
SUM_EM1	0.00	0.00	-0.01	0.00	0.00	-0.05
SUM_EM2	0.01	0.03	0.00	0.05	0.00	-0.06
SUM_EM3	0.01	0.00	-0.01	0.02	0.01	-0.03
SUM_EV1	-0.04	0.03	-0.03	-0.03	0.00	-0.03
SUM_EV2	0.00	0.03	-0.03	-0.02	0.01	-0.06
SUM_SC1	0.03	0.01	0.00	-0.03	0.00	0.04
SUM_SC2	-0.04	0.03	-0.03	-0.03	0.00	-0.03
SUM_SC3	0.00	0.03	-0.03	-0.02	0.01	-0.06

Fitted Residuals

	SUM_PS1	SUM_PS2	SUM_PS3	SUM_PS4	SUM_EM1	SUM_EM2
SUM_PS1	0.00					
SUM_PS2	0.00	0.00				
SUM_PS3	0.00	0.00	0.00			
SUM_PS4	0.00	0.00	0.00	0.00		
SUM_EM1	0.01	0.01	0.02	0.00	0.00	
SUM_EM2	0.00	0.01	0.02	0.01	0.00	0.00
SUM_EM3	0.00	-0.01	0.02	0.00	0.00	0.00
SUM_EV1	0.00	-0.01	0.01	0.00	-0.01	-0.04
SUM_EV2	0.00	0.00	0.01	0.02	0.01	0.02
SUM_SC1	-0.01	0.00	0.01	-0.01	0.01	0.00
SUM_SC2	0.00	-0.01	0.01	0.00	-0.01	-0.04
SUM_SC3	0.00	0.00	0.01	0.02	0.01	0.02

Fitted Residuals

	SUM_EM3	SUM_EV1	SUM_EV2	SUM_SC1	SUM_SC2	SUM_SC3
SUM_EM3	0.00					
SUM_EV1	-0.02	0.00				
SUM_EV2	0.01	0.02	0.00			
SUM_SC1	0.00	0.02	-0.03	0.00		
SUM_SC2	-0.02	0.00	0.02	0.02	0.00	
SUM_SC3	0.01	0.02	0.00	-0.03	0.02	0.00

Summary Statistics for Fitted Residuals

Smallest Fitted Residual = 0.06
 Median Fitted Residual = 0.01
 Largest Fitted Residual = 0.31

Stemleaf Plot

```

- 6|00
- 4|66
- 2|665555333322999999863100
- 0|977754433322299887777666555554444443333222111100000000000000000000
0|111111111122222222223333334444444555555666666777778888899900001111+25
2|012223555555889911
4|255688925666
6|558911244578
8|012223555670028
10|01227888034
12|35666635
14|02378117
16|88
18|999
20|946
    
```

22|2
 24|844
 26|55
 28|11
 30|55

Standardized Residuals

	SUM_CSC1	SUM_CSC2	SUM_CSC3	SUM_CSC4	SUM_CSC5	SUM_CSC6
SUM_CSC1	0.91					
SUM_CSC2	11.34	11.25				
SUM_CSC3	10.90	11.39	11.66			
SUM_CSC4	11.08	10.83	11.50	11.37		
SUM_CSC5	-0.13	1.50	1.01	1.00	1.74	
SUM_CSC6	0.53	1.65	0.34	0.73	3.50	2.87
SUM_ES1	7.14	5.32	5.44	5.78	2.70	1.88
SUM_ES2	8.25	5.13	6.94	5.22	3.17	1.15
SUM_ES3	8.08	5.42	6.85	5.57	2.42	3.34
SUM_OE1	7.34	7.10	6.78	4.01	4.10	3.52
SUM_OE2	9.51	8.16	6.53	8.06	2.62	0.82
SUM_OE3	8.15	4.43	4.96	3.94	3.23	3.75
SUM_PS1	0.24	0.78	0.50	-0.64	-1.71	-0.40
SUM_PS2	0.19	0.24	0.88	0.18	-0.56	0.61
SUM_PS3	1.10	2.09	1.80	1.85	-1.36	-0.03
SUM_PS4	0.38	-0.58	1.23	-0.30	-1.42	0.26
SUM_EM1	8.95	5.44	5.81	4.64	2.91	1.78
SUM_EM2	9.33	8.07	6.99	5.10	3.21	2.20
SUM_EM3	9.42	8.44	6.30	5.55	2.90	1.10
SUM_EV1	10.48	7.30	9.51	5.32	0.48	-1.21
SUM_EV2	11.63	9.58	7.50	6.05	2.02	0.59
SUM_SC1	8.58	5.88	5.96	5.82	0.31	1.02
SUM_SC2	10.48	7.30	9.51	5.32	0.48	-1.21
SUM_SC3	11.63	9.58	7.50	6.05	2.02	0.59

Standardized Residuals

	SUM_ES1	SUM_ES2	SUM_ES3	SUM_OE1	SUM_OE2	SUM_OE3
SUM_ES1	-0.48					
SUM_ES2	0.12	1.09				
SUM_ES3	0.23	-1.06	-0.94			
SUM_OE1	-0.91	-1.30	0.86	-0.28		
SUM_OE2	0.26	-0.99	1.34	-0.77	-1.99	
SUM_OE3	-2.35	-2.36	-5.27	0.65	-2.36	-9.76
SUM_PS1	0.08	0.93	0.44	0.75	1.71	-0.92
SUM_PS2	-0.38	0.14	0.22	0.20	-0.55	-1.28
SUM_PS3	0.85	1.42	0.93	0.48	1.80	-0.22
SUM_PS4	-0.55	-0.50	-0.73	0.75	0.24	-2.06
SUM_EM1	-0.25	0.18	-0.53	0.20	-0.21	-2.42
SUM_EM2	0.91	1.62	0.03	2.78	0.06	-3.04
SUM_EM3	0.75	-0.30	-0.87	1.02	0.75	-1.55
SUM_EV1	-2.47	2.11	-2.63	-1.98	-0.37	-1.76
SUM_EV2	0.12	2.06	-2.28	-1.24	0.49	-3.44
SUM_SC1	1.68	0.83	0.35	-2.08	0.13	2.42
SUM_SC2	-2.47	2.11	-2.63	-1.98	-0.37	-1.76
SUM_SC3	0.12	2.06	-2.28	-1.24	0.49	-3.44

Standardized Residuals

	SUM_PS1	SUM_PS2	SUM_PS3	SUM_PS4	SUM_EM1	SUM_EM2
SUM_PS1	- -					
SUM_PS2	0.79	0.99				
SUM_PS3	- -	-1.67	- -			
SUM_PS4	-0.16	1.35	1.29	- -		
SUM_EM1	0.83	0.95	1.50	0.46	- -	
SUM_EM2	0.51	1.18	1.71	1.10	- -	- -
SUM_EM3	-0.61	-0.85	1.51	-0.52	-0.99	0.14
SUM_EV1	-0.32	-0.85	0.49	0.46	-1.10	-3.71
SUM_EV2	0.48	0.16	0.56	2.14	0.44	1.61
SUM_SC1	-1.91	0.20	0.42	-0.75	0.99	-0.14
SUM_SC2	-0.32	-0.85	0.49	0.46	-1.10	-3.71
SUM_SC3	0.48	0.16	0.56	2.14	0.44	1.61

Standardized Residuals

SUM_EM3	SUM_EV1	SUM_EV2	SUM_SC1	SUM_SC2	SUM_SC3
---------	---------	---------	---------	---------	---------

SUM_EM3	-0.50						
SUM_EV1	-1.83	- -					
SUM_EV2	0.76	2.04	- -				
SUM_SC1	0.50	2.92	-3.31	- -			
SUM_SC2	-1.83	- -	2.04	2.92	- -		
SUM_SC3	0.76	2.04	- -	-3.31	2.04	- -	- -

Summary Statistics for Standardized Residuals

Smallest Standardized Residual = -1.76
 Median Standardized Residual = 0.69
 Largest Standardized Residual = 1.96

Stemleaf Plot

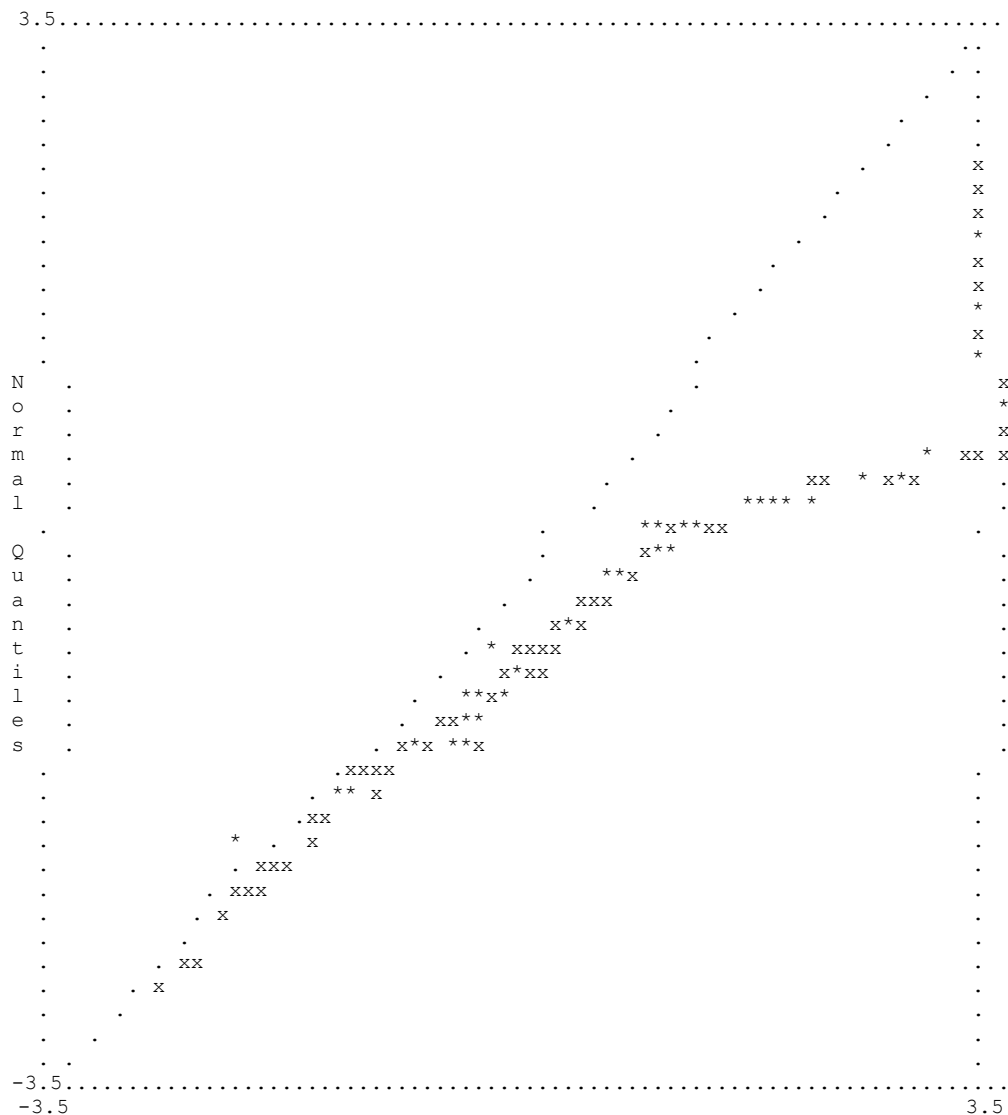
```

- 9|8
- 8|
- 7|
- 6|
- 5|3
- 4|
- 3|7744330
- 2|665544443311000
- 1|98888775443322211100
- 0|999988888766666655555444433333222110000000000000000
0|111111122222222222223333444445555555555555555666667777888888888999999
1|000000011112223334555666677778889
2|00000011111124467899999
3|22235579
4|0146
5|0112333444568889
6|00035889
7|01133355
8|111222469
9|3455566
10|5589
11|123445667

```

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Qplot of Standardized Residuals



Standardized Residuals

The Modification Indices Suggest to Add the

Path to	from	Decrease in Chi-Square	New Estimate
SUM_CSC1	CSC	135.4	1.00
SUM_CSC1	ES	79.5	0.34
SUM_CSC1	OE	123.7	0.42

The Modification Indices Suggest to Add an Error Covariance

Between	and	Decrease in Chi-Square	New Estimate
SUM_EM1	SUM_CSC2	10.7	-0.03
SUM_EM2	SUM_OE1	13.2	0.05
SUM_EM2	SUM_OE3	8.0	-0.04
SUM_SC1	SUM_CSC5	13.1	-0.05
SUM_SC1	SUM_CSC6	8.4	0.04
SUM_SC1	SUM_OE1	10.1	-0.05
SUM_SC1	SUM_OE3	19.5	0.08

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Factor Scores Regressions

ETA

	SUM_CSC1	SUM_CSC2	SUM_CSC3	SUM_CSC4	SUM_CSC5	SUM_CSC6
CSC	-0.53	0.58	0.03	0.79	0.01	0.08
ES	-0.02	0.01	0.01	0.01	0.01	0.00
OE	-0.10	0.09	-0.02	0.23	0.06	-0.02
PSSCM	-0.05	0.11	-0.02	0.01	0.01	-0.01

ETA

	SUM_ES1	SUM_ES2	SUM_ES3	SUM_OE1	SUM_OE2	SUM_OE3
CSC	-0.07	0.01	0.03	-0.02	0.14	-0.05
ES	0.08	0.61	0.60	0.20	0.03	-0.12
OE	-0.07	0.29	0.14	0.32	0.40	0.15
PSSCM	0.01	-0.03	0.00	-0.09	0.00	-0.01

ETA

	SUM_PS1	SUM_PS2	SUM_PS3	SUM_PS4	SUM_EM1	SUM_EM2
CSC	-0.07	0.15	-0.01	-0.06	0.00	0.00
ES	0.03	-0.07	0.00	0.03	0.00	0.00
OE	0.00	-0.13	0.00	0.00	0.02	0.03
PSSCM	1.15	1.12	0.09	0.92	0.00	0.01

ETA

	SUM_EM3	SUM_EV1	SUM_EV2	SUM_SC1	SUM_SC2	SUM_SC3
CSC	0.00	0.00	0.00	-0.01	0.00	0.00
ES	0.01	0.01	0.00	0.01	0.01	0.00
OE	0.05	0.04	0.03	0.08	0.04	0.03
PSSCM	0.01	0.01	0.01	0.01	0.01	0.01

KSI

	SUM_CSC1	SUM_CSC2	SUM_CSC3	SUM_CSC4	SUM_CSC5	SUM_CSC6
ISSCM	-0.05	0.05	0.00	0.09	0.01	0.00

KSI

	SUM_ES1	SUM_ES2	SUM_ES3	SUM_OE1	SUM_OE2	SUM_OE3
ISSCM	-0.02	0.08	0.05	0.08	0.11	0.03

KSI

	SUM_PS1	SUM_PS2	SUM_PS3	SUM_PS4	SUM_EM1	SUM_EM2
ISSCM	0.05	0.02	0.00	0.04	0.06	0.11

KSI

	SUM_EM3	SUM_EV1	SUM_EV2	SUM_SC1	SUM_SC2	SUM_SC3
ISSCM	0.20	0.15	0.12	0.31	0.15	0.12

TI PSSCM

Standardized Solution

LAMBDA-Y

	CSC	ES	OE	PSSCM
SUM_CSC1	--	--	--	--
SUM_CSC2	0.40	--	--	--
SUM_CSC3	0.28	--	--	--
SUM_CSC4	0.54	--	--	--
SUM_CSC5	0.03	--	--	--
SUM_CSC6	0.09	--	--	--
SUM_ES1	--	0.53	--	--
SUM_ES2	--	0.64	--	--
SUM_ES3	--	0.59	--	--
SUM_OE1	--	--	0.58	--
SUM_OE2	--	--	0.56	--
SUM_OE3	--	--	0.56	--
SUM_PS1	--	--	--	0.19
SUM_PS2	--	--	--	0.28
SUM_PS3	--	--	--	0.20
SUM_PS4	--	--	--	0.25

LAMBDA-X

ISSCM

SUM_EM1	0.52
SUM_EM2	0.55
SUM_EM3	0.58
SUM_EV1	0.58
SUM_EV2	0.52
SUM_SC1	0.62
SUM_SC2	0.58
SUM_SC3	0.52

BETA

	CSC	ES	OE	PSSCM
CSC	--	--	--	--
ES	0.17	--	--	--
OE	0.20	0.42	--	--
PSSCM	0.12	--	0.38	--

GAMMA

ISSCM

CSC	0.60
ES	0.58
OE	0.41
PSSCM	0.33

Correlation Matrix of ETA and KSI

	CSC	ES	OE	PSSCM	ISSCM
CSC	1.00				
ES	0.52	1.00			
OE	0.67	0.81	1.00		
PSSCM	0.06	-0.02	-0.02	1.00	
ISSCM	0.60	0.69	0.82	0.09	1.00

PSI

Note: This matrix is diagonal.

	CSC	ES	OE	PSSCM
CSC	0.64			
ES		0.51		
OE			0.19	
PSSCM				0.95

Regression Matrix ETA on KSI (Standardized)

	ISSCM
CSC	0.60
ES	0.69
OE	0.82
PSSCM	0.09

TI PSSCM

Completely Standardized Solution

LAMBDA-Y

	CSC	ES	OE	PSSCM
SUM_CSC1	0.56	--	--	--
SUM_CSC2	0.63	--	--	--
SUM_CSC3	0.42	--	--	--
SUM_CSC4	0.85	--	--	--
SUM_CSC5	0.04	--	--	--
SUM_CSC6	0.12	--	--	--
SUM_ES1	--	0.74	--	--
SUM_ES2	--	0.84	--	--
SUM_ES3	--	0.82	--	--
SUM_OE1	--	--	0.73	--
SUM_OE2	--	--	0.79	--
SUM_OE3	--	--	0.68	--
SUM_PS1	--	--	--	0.78
SUM_PS2	--	--	--	0.81
SUM_PS3	--	--	--	0.53
SUM_PS4	--	--	--	0.78

LAMBDA-X

ISSCM

SUM_EM1	0.68
SUM_EM2	0.71
SUM_EM3	0.73
SUM_EV1	0.77
SUM_EV2	0.71
SUM_SC1	0.78
SUM_SC2	0.77
SUM_SC3	0.71

Correlation Matrix of ETA and KSI

	CSC	ES	OE	PSSCM	ISSCM
CSC	1.00				
ES	0.52	1.00			
OE	0.67	0.81	1.00		
PSSCM	0.06	0.02	0.02	1.00	
ISSCM	0.60	0.69	0.82	0.09	1.00

PSI

Note: This matrix is diagonal.

	CSC	ES	OE	PSSCM
	0.64	0.51	0.19	0.95

THETA-EPS

	SUM_CSC1	SUM_CSC2	SUM_CSC3	SUM_CSC4	SUM_CSC5	SUM_CSC6
SUM_CSC1	1.00					
SUM_CSC2	0.58	0.60				
SUM_CSC3	0.61	0.35	0.82			
SUM_CSC4	0.32	--	0.19	0.27		
SUM_CSC5	0.12	--	--	--	1.00	
SUM_CSC6	0.06	--	--	0.09	0.73	0.99
SUM_ES1	--	--	--	0.05	--	--
SUM_ES2	--	--	--	--	--	--
SUM_ES3	--	--	--	--	--	--
SUM_OE1	--	--	--	--	--	--
SUM_OE2	--	--	--	0.08	-0.08	--
SUM_OE3	0.05	--	--	--	--	--
SUM_PS1	--	--	--	--	--	--
SUM_PS2	--	0.06	--	--	--	--
SUM_PS3	--	--	--	--	--	--
SUM_PS4	--	--	--	--	--	--

THETA-EPS

	SUM_ES1	SUM_ES2	SUM_ES3	SUM_OE1	SUM_OE2	SUM_OE3
SUM_ES1	0.45					
SUM_ES2	0.05	0.30				
SUM_ES3	- -	0.18	0.33			
SUM_OE1	- -	0.14	- -	0.47		
SUM_OE2	- -	- -	- -	- -	0.38	
SUM_OE3	0.10	- -	0.13	- -	- -	0.54
SUM_PS1	- -	- -	- -	- -	- -	- -
SUM_PS2	- -	- -	- -	0.08	- -	- -
SUM_PS3	- -	- -	- -	- -	- -	- -
SUM_PS4	- -	- -	- -	- -	- -	- -

THETA-EPS

	SUM_PS1	SUM_PS2	SUM_PS3	SUM_PS4
SUM_PS1	0.40			
SUM_PS2	- -	0.34		
SUM_PS3	0.20	- -	0.72	
SUM_PS4	- -	- -	- -	0.40

THETA-DELTA

	SUM_EM1	SUM_EM2	SUM_EM3	SUM_EV1	SUM_EV2	SUM_SC1
SUM_EM1	0.54					
SUM_EM2	0.30	0.49				
SUM_EM3	0.18	0.17	0.47			
SUM_EV1	- -	- -	- -	0.41		
SUM_EV2	- -	- -	- -	- -	0.49	
SUM_SC1	- -	- -	-0.05	- -	- -	0.40
SUM_SC2	- -	- -	- -	0.40	- -	- -
SUM_SC3	- -	- -	- -	- -	0.49	- -

THETA-DELTA

	SUM_SC2	SUM_SC3
SUM_SC2	0.41	
SUM_SC3	- -	0.49

Regression Matrix ETA on KSI (Standardized)

ISSCM

CSC	0.60
ES	0.69
OE	0.82
PSSCM	0.09

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Total and Indirect Effects

Total Effects of KSI on ETA

	ISSCM
CSC	0.41 (0.04) 9.70
ES	0.63 (0.06) 10.86
OE	0.85 (0.06) 13.29

PSSCM	0.09
	(0.06)
	1.58

Indirect Effects of KSI on ETA

	ISSCM

CSC	- -
ES	0.09
	(0.03)
	3.01
OE	0.42
	(0.06)
	6.78
PSSCM	0.22
	(0.11)
	2.09

Total Effects of ETA on ETA

	CSC	ES	OE	PSSCM
	-----	-----	-----	-----
CSC	- -	- -	- -	- -
ES	0.23	- -	- -	- -
	(0.08)			
	3.03			
OE	0.42	0.48	- -	- -
	(0.10)	(0.08)		
	4.31	5.89		
PSSCM	0.03	0.46	0.34	- -
	(0.10)	(0.07)	(0.14)	
	0.19	2.40	2.44	

Largest Eigenvalue of B*B' (Stability Index) is 0.354

Indirect Effects of ETA on ETA

	CSC	ES	OE	PSSCM
	-----	-----	-----	-----
CSC	- -	- -	- -	- -
ES	- -	- -	- -	- -
OE	0.11 (0.04) 2.72	- -	- -	- -
PSSCM	0.14 (0.07) 2.13	0.16 (0.07) 2.40	- -	- -

Total Effects of ETA on Y

	CSC	ES	OE	PSSCM
	-----	-----	-----	-----
SUM_CSC1	- -	- -	- -	- -
SUM_CSC2	0.59	- -	- -	- -
SUM_CSC3	0.42 (0.06) 7.17	- -	- -	- -
SUM_CSC4	0.80 (0.08) 10.11	- -	- -	- -
SUM_CSC5	0.04 (0.06) 0.75	- -	- -	- -
SUM_CSC6	0.13 (0.07) 1.91	- -	- -	- -
SUM_ES1	0.14 (0.04) 3.03	0.58	- -	- -
SUM_ES2	0.16 (0.05) 3.07	0.70 (0.05) 14.01	- -	- -
SUM_ES3	0.15 (0.05) 3.06	0.64 (0.05) 13.01	- -	- -
SUM_OE1	0.23 (0.05) 4.31	0.27 (0.05) 5.89	0.56	- -
SUM_OE2	0.22 (0.05) 4.32	0.25 (0.04) 6.03	0.53 (0.04) 14.69	- -
SUM_OE3	0.22 (0.05) 4.25	0.26 (0.04) 5.74	0.54 (0.04) 12.81	- -
SUM_PS1	0.00 (0.02) 0.19	0.03 (0.01) -2.40	0.07 (0.03) 2.44	0.20
SUM_PS2	0.01	0.05	-0.10	0.30

	(0.03)	(0.02)	(0.04)	(0.02)
	0.19	2.42	2.46	14.59
SUM_PS3	0.00	0.03	0.07	0.21
	(0.02)	(0.01)	(0.03)	(0.02)
	0.19	2.36	2.40	11.87
SUM_PS4	0.01	0.04	0.09	0.26
	(0.03)	(0.02)	(0.04)	(0.02)
	0.19	-2.40	2.44	14.41

Indirect Effects of ETA on Y

	CSC	ES	OE	PSSCM
	-----	-----	-----	-----
SUM_CSC1	- -	- -	- -	- -
SUM_CSC2	- -	- -	- -	- -
SUM_CSC3	- -	- -	- -	- -
SUM_CSC4	- -	- -	- -	- -
SUM_CSC5	- -	- -	- -	- -
SUM_CSC6	- -	- -	- -	- -
SUM_ES1	0.14 (0.04) 3.03	- -	- -	- -
SUM_ES2	0.16 (0.05) 3.07	- -	- -	- -
SUM_ES3	0.15 (0.05) 3.06	- -	- -	- -
SUM_OE1	0.23 (0.05) 4.31	0.27 (0.05) 5.89	- -	- -
SUM_OE2	0.22 (0.05) 4.32	0.25 (0.04) 6.03	- -	- -
SUM_OE3	0.22 (0.05) 4.25	0.26 (0.04) 5.74	- -	- -
SUM_PS1	0.00 (0.02) 0.19	0.03 (0.01) 2.40	0.07 (0.03) 2.44	- -
SUM_PS2	0.01 (0.03) 0.19	0.05 (0.02) 2.42	0.10 (0.04) -2.46	- -
SUM_PS3	0.00 (0.02) 0.19	0.03 (0.01) 2.36	0.07 (0.03) 2.40	- -
SUM_PS4	0.01 (0.03) 0.19	0.04 (0.02) 2.40	0.09 (0.04) 2.44	- -

Total Effects of KSI on Y

	ISSCM

SUM_CSC1	- -
SUM_CSC2	0.24 (0.02) 9.70
SUM_CSC3	0.17 (0.03) 6.73
SUM_CSC4	0.32 (0.03) 11.21
SUM_CSC5	0.02 (0.02) 0.75
SUM_CSC6	0.05 (0.03) 1.91
SUM_ES1	0.37 (0.03) 10.86
SUM_ES2	0.44 (0.04) 12.27
SUM_ES3	0.40 (0.03) 12.02
SUM_OE1	0.48 (0.04) 13.29
SUM_OE2	0.46 (0.03) 14.27
SUM_OE3	0.46 (0.04) 12.36
SUM_PS1	0.02 (0.01) 1.58
SUM_PS2	0.03 (0.02) 1.58
SUM_PS3	0.02 (0.01) 1.57
SUM_PS4	0.02 (0.01) 1.58

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Standardized Total and Indirect Effects

Standardized Total Effects of KSI on ETA

	ISSCM

CSC	0.41
ES	0.63
OE	0.85
PSSCM	0.09

Standardized Indirect Effects of KSI on ETA

	ISSCM

CSC	
ES	0.09
OE	0.42
PSSCM	0.22

Standardized Total Effects of ETA on ETA

	CSC	ES	OE	PSSCM
	-----	-----	-----	-----
CSC	--	--	--	--
ES	0.23	--	--	--
OE	0.42	0.48	--	--
PSSCM	0.03	0.46	0.34	--

Standardized Total Effects of ETA on Y

	CSC	ES	OE	PSSCM
	-----	-----	-----	-----
SUM_CSC1	0.34	--	--	--
SUM_CSC2	0.40	--	--	--
SUM_CSC3	0.28	--	--	--
SUM_CSC4	0.54	--	--	--
SUM_CSC5	0.03	--	--	--
SUM_CSC6	0.09	--	--	--
SUM_ES1	0.09	0.53	--	--
SUM_ES2	0.11	0.64	--	--
SUM_ES3	0.10	0.59	--	--
SUM_OE1	0.16	0.25	0.58	--
SUM_OE2	0.15	0.23	0.56	--
SUM_OE3	0.15	0.23	0.56	--
SUM_PS1	0.00	0.03	0.07	0.19
SUM_PS2	0.00	0.04	0.11	0.28
SUM_PS3	0.00	0.03	0.08	0.20
SUM_PS4	0.00	0.04	0.09	0.25

Completely Standardized Total Effects of ETA on Y

	CSC	ES	OE	PSSCM
	-----	-----	-----	-----
SUM_CSC1	0.54	--	--	--
SUM_CSC2	0.63	--	--	--
SUM_CSC3	0.42	--	--	--
SUM_CSC4	0.85	--	--	--
SUM_CSC5	0.04	--	--	--
SUM_CSC6	0.12	--	--	--
SUM_ES1	0.13	0.74	--	--
SUM_ES2	0.14	0.84	--	--
SUM_ES3	0.14	0.82	--	--
SUM_OE1	0.20	0.31	0.73	--
SUM_OE2	0.21	0.33	0.79	--
SUM_OE3	0.18	0.29	0.68	--
SUM_PS1	0.01	-0.12	0.29	0.78
SUM_PS2	0.01	-0.13	0.31	0.81
SUM_PS3	0.01	-0.08	0.20	0.53
SUM_PS4	0.01	-0.12	0.29	0.78

Standardized Indirect Effects of ETA on Y

	CSC	ES	OE	PSSCM
	-----	-----	-----	-----
SUM_CSC1	- -	- -	- -	- -
SUM_CSC2	- -	- -	- -	- -
SUM_CSC3	- -	- -	- -	- -
SUM_CSC4	- -	- -	- -	- -
SUM_CSC5	- -	- -	- -	- -
SUM_CSC6	- -	- -	- -	- -
SUM_ES1	0.09	- -	- -	- -
SUM_ES2	0.11	- -	- -	- -
SUM_ES3	0.10	- -	- -	- -
SUM_OE1	0.16	0.25	- -	- -
SUM_OE2	0.15	0.23	- -	- -
SUM_OE3	0.15	0.23	- -	- -
SUM_PS1	0.00	0.03	0.07	- -
SUM_PS2	0.00	0.04	0.11	- -
SUM_PS3	0.00	0.03	0.08	- -
SUM_PS4	0.00	0.04	0.09	- -

Completely Standardized Indirect Effects of ETA on Y

	CSC	ES	OE	PSSCM
	-----	-----	-----	-----
SUM_CSC1	- -	- -	- -	- -
SUM_CSC2	- -	- -	- -	- -
SUM_CSC3	- -	- -	- -	- -
SUM_CSC4	- -	- -	- -	- -
SUM_CSC5	- -	- -	- -	- -
SUM_CSC6	- -	- -	- -	- -
SUM_ES1	0.13	- -	- -	- -
SUM_ES2	0.14	- -	- -	- -
SUM_ES3	0.14	- -	- -	- -
SUM_OE1	0.20	0.31	- -	- -
SUM_OE2	0.21	0.33	- -	- -
SUM_OE3	0.18	0.29	- -	- -
SUM_PS1	0.01	0.12	0.29	- -
SUM_PS2	0.01	0.13	0.31	- -
SUM_PS3	0.01	0.08	0.20	- -
SUM_PS4	0.01	0.12	0.29	- -

Standardized Total Effects of KSI on Y

	ISSCM

SUM_CSC1	- -
SUM_CSC2	0.24
SUM_CSC3	0.17
SUM_CSC4	0.32
SUM_CSC5	0.02
SUM_CSC6	0.05
SUM_ES1	0.37
SUM_ES2	0.44
SUM_ES3	0.40
SUM_OE1	0.48
SUM_OE2	0.46
SUM_OE3	0.46
SUM_PS1	0.02
SUM_PS2	0.03
SUM_PS3	0.02
SUM_PS4	0.02

Completely Standardized Total Effects of KSI on Y

	ISSCM

SUM_CSC1	- -
SUM_CSC2	0.38
SUM_CSC3	0.25
SUM_CSC4	0.51
SUM_CSC5	0.02
SUM_CSC6	0.07
SUM_ES1	0.51
SUM_ES2	0.57
SUM_ES3	0.56
SUM_OE1	0.60

SUM_OE2	0.65
SUM_OE3	0.56
SUM_PS1	0.07
SUM_PS2	0.08
SUM_PS3	0.05
SUM_PS4	0.07

Time used: 0.109 Seconds