

มหาวิทยาลัยเชียงใหม่  
Chiang Mai University

**ภาคผนวก**

ตารางที่ 1 ค่า correlation ของตัวแปรในโมเดลเต็มรูป (full model)

	LNPRF	LNFEW	LNAAS	LNAAS1	LNAAS2	LNVEA1	LNNUM	GRC	LNNUP	REP	LNDIS	QIN
LNPRF	1.000	.524	.332	.256	.288	.306	.092	.034	.612	.354	-.084	.008
LNFEW	.524	1.000	-.041	.183	-.037	.035	-.185	.056	.179	-.008	.050	-.089
LNAAS	.332	-.041	1.000	.197	.630	.181	.104	-.081	.324	.271	-.054	-.032
LNAAS1	.256	.183	.197	1.000	-.011	.422	.046	.073	.285	.069	-.032	-.108
LNAAS2	.288	-.037	.630	-.011	1.000	.084	.255	-.072	.116	.135	-.263	-.060
LNVEA1	.306	.035	.181	.422	.084	1.000	.022	.201	.335	.292	-.101	-.151
LNNUM	.092	-.185	.104	.046	.255	.022	1.000	-.097	.206	.182	-.166	.110
GRC	.034	.056	-.081	.073	-.072	.201	-.097	1.000	-.110	.219	-.109	.020
LNNUP	.612	.179	.324	.285	.116	.335	.206	-.110	1.000	.350	-.096	.185
REP	.354	-.008	.271	.069	.135	.292	.182	.219	.350	1.000	.022	-.097
LNDIS	-.084	.050	-.054	-.032	-.263	-.101	-.166	-.109	-.096	.022	1.000	-.210
QIN	.008	-.089	-.032	-.108	-.060	-.151	.110	.020	.185	-.097	-.210	1.000
REW	.432	.147	.207	.235	.206	.472	.062	.087	.392	.416	.236	-.073
NGMI	.384	-.048	.270	.298	.156	.508	.182	.106	.482	.215	.100	.198
S1	-.007	-.215	.069	-.079	.018	.196	.364	-.088	.418	.095	.088	.170
S2	-.007	.121	-.087	.027	.015	-.154	-.164	-.014	-.348	-.078	.029	-.252
S3	.020	.129	.027	.072	-.047	-.056	-.275	.142	-.091	-.022	-.162	.118
ATO	.092	-.184	.172	-.025	.129	.090	.204	.134	.064	.179	-.150	.007
WEG	.132	-.098	.132	-.038	.037	.187	.186	.165	.100	.230	-.140	.070
HEA	.000	-.163	.082	-.218	.091	-.061	.064	.178	-.068	.093	-.044	.134
WOR	.070	-.200	.084	-.060	.050	.073	.155	.129	.076	.214	-.108	-.021
ADU	.081	-.101	.126	-.132	.115	.025	.194	.060	.089	.201	-.052	-.040
ADV	.102	-.150	.110	-.080	-.025	.102	.191	.068	.070	.158	-.084	-.058
FRD	.043	-.196	.154	-.031	.090	.109	.190	.157	.005	.129	-.142	-.037
OFC	.124	-.075	.070	.017	.068	.049	.168	.149	.044	.176	-.099	.019

	REW	NGMI	S1	S2	S3	ATO	WEG	HEA	WOR	ADU	ADV	FRD	OFC
LNPRF	.432	.384	-.007	-.007	.020	.092	.132	.000	.070	.081	.102	.043	.124
LNEFW	.147	-.048	-.215	.121	.129	-.184	-.098	-.163	-.200	-.101	-.150	-.196	-.075
LNAAS	.207	.270	.069	-.087	.027	.172	.132	.082	.084	.126	.110	.154	.070
LNAAS1	.235	.298	-.079	.027	.072	-.025	-.038	-.218	-.060	-.132	-.080	-.031	.017
LNAAS2	.206	.156	.018	.015	-.047	.129	.037	.091	.050	.115	-.025	.090	.068
LNYEAL	.472	.508	.196	-.154	-.056	.090	.187	-.061	.073	.025	.102	.109	.049
LNNUM	.062	.182	.364	-.164	-.275	.204	.186	.064	.155	.194	.191	.190	.168
GRO	.087	.106	-.088	-.014	.142	.134	.165	.178	.129	.060	.068	.157	.149
LNNUP	.392	.482	.418	-.348	-.091	.064	.100	-.068	.076	.089	.070	.005	.044
REP	.416	.215	.095	-.078	-.022	.179	.230	.093	.214	.201	.158	.129	.176
LNDIS	.236	.100	.088	.029	-.162	-.150	-.140	-.044	-.108	-.052	-.084	-.142	-.099
QIN	-.073	.198	.170	-.252	.118	.007	.070	.134	-.021	-.040	.058	-.037	.019
REW	1.000	.442	.075	-.027	-.066	.110	.062	.010	.067	.055	.011	.030	.020
NGMI	.442	1.000	.359	-.260	-.134	.168	.132	.101	.151	.152	.120	.111	.140
S1	.075	.359	1.000	-.744	-.343	.068	.073	.047	.120	.136	.055	.026	.078
S2	-.027	-.260	-.744	1.000	-.372	.021	-.065	-.074	-.146	-.191	-.049	.023	-.050
S3	-.066	-.134	-.343	-.372	1.000	-.123	-.010	.037	.037	.077	-.007	-.067	-.038
ATO	.110	.168	.068	.021	-.123	1.000	.427	.443	.467	.257	.568	.642	.358
WEG	.062	.132	.073	-.065	-.010	.427	1.000	.527	.436	.288	.475	.363	.311
HEA	.047	.047	1.000	-.074	.037	.443	.527	1.000	.441	.284	.451	.439	.391
WOR	.067	.151	.120	-.146	.037	.467	.436	.441	1.000	.401	.549	.385	.325
ADU	.055	.152	.136	-.191	.077	.257	.288	.284	.401	1.000	.306	.119	.307
ADV	.011	.120	.055	-.049	-.007	.568	.475	.451	.306	.306	1.000	.543	.363
FRD	.030	.111	.026	.023	-.067	.642	.385	.439	.119	.119	.543	1.000	.361
OFC	.020	.140	.078	-.050	-.038	.358	.311	.391	.307	.307	.363	.361	1.000

ตารางที่ 2 ค่า correlation ของตัวแปรในโมเดลที่ทดสอบแล้ว

	LNPRF	LNEFW	LNNUP	REP	WOR	ADU	FRD	OFC	ADV	LNDIS	QIN
LNPRF	1.000	.524	.612	.354	.070	.081	.043	.124	.102	-.084	.008
LNEFW	.524	1.000	.179	-.008	-.200	-.101	-.196	-.075	-.150	.050	-.089
LNNUP	.612	.179	1.000	.350	.076	.089	.005	.044	.070	-.096	.185
REP	.354	-.008	.350	1.000	.214	.201	.129	.176	.158	.022	-.097
WOR	.070	-.200	.076	.214	1.000	.401	.385	.325	.549	-.108	-.021
ADU	.081	-.101	.089	.201	.401	1.000	.119	.307	.306	-.052	-.040
FRD	.043	-.196	.005	.129	.385	.119	1.000	.361	.543	-.142	-.037
OFC	.124	-.075	.044	.176	.325	.307	.361	1.000	.363	-.099	.019
ADV	.102	-.150	.070	.158	.549	.306	.543	.363	1.000	-.084	.058
LNDIS	-.084	.050	-.096	.022	-.108	-.052	-.142	-.099	-.084	1.000	-.210
QIN	.008	-.089	.185	-.097	-.021	-.040	-.037	.019	.058	-.210	1.000

ตารางที่ 3 การทดสอบความสัมพันธ์เชิงเส้นระหว่าง lnPRF กับตัวแปรอิสระ

ตัวแปร	$\eta^2$	$R^2$	F จำนวน
lnPRF - lnASS	0.902	0.111	533.654*
lnPRF - lnNUP	0.494	0.375	387.423*
lnPRF - REW	0.187	0.187	0
lnPRF - NGM1	0.147	0.147	0
lnPRF - lnDIS	0.689	0.007	11.130*
lnPRF - REP	0.125	0.125	0
lnPRF - GRO	0.001	0.001	0
lnPRF - lnNUM	0.791	0.008	19.901*
lnPRF - YEA1	0.160	0.094	58.444*
lnPRF - OTH	0.000	0.000	0
lnPRF - ATM	0.078	0.002	1.029
lnPRF - ATO	0.066	0.008	4.510*
lnPRF - WEG	0.084	0.017	9.738*
lnPRF - HEA	0.023	0.000	0.000
lnPRF - WOR	0.083	0.005	1.345
lnPRF - ADU	0.017	0.007	1.722
lnPRF - ADV	0.016	0.010	5.357*
lnPRF - FRD	0.010	0.002	0.963
lnPRF - ENT	0.064	0.006	3.491
lnPRF - OFC	0.037	0.015	8.185*
lnPRF - lnASS1	0.751	0.066	129.045*
lnPRF - lnASS2	0.899	0.083	393.477*
lnPRF - QIN	0.000	0.000	0

หมายเหตุ : \* ผลการทดสอบพบว่าตัวแปรคู่กันไม่มีความสัมพันธ์กันเชิงเส้นตรง

ตารางที่ 4 การทดสอบความสัมพันธ์เชิงเส้นระหว่าง lnEFW กับตัวแปรอิสระ

ตัวแปร	$\eta^2$	$R^2$	F จำนวน
lnEFW - lnASS	0.987	0.002	60.171*
lnEFW- lnNUP	0.140	0.032	19.396*
lnEFW- REW	0.022	0.022	0
lnEFW - NGMI	0.002	0.002	0
lnEFW- lnDIS	0.653	0.002	3.511
lnEFW - REP	0.000	0.000	0
lnEFW - GRO	0.003	0.003	0
lnEFW - lnNUM	0.710	0.034	58.212*
lnEFW - YEA1	0.064	0.001	0.677
lnEFW - OTH	0.001	0.001	0
lnEFW - ATM	0.112	0.047	25.730*
lnEFW - ATO	0.093	0.034	18.806*
lnEFW - WEG	0.085	0.010	5.403*
lnEFW - HEA	0.060	0.026	7.140*
lnEFW - WOR	0.108	0.040	11.315*
lnEFW - ADU	0.016	0.010	2.652
lnEFW - ADV	0.070	0.022	12.265*
lnEFW - FRD	0.055	0.038	20.598*
lnEFW - ENT	0.076	0.044	24.145*
lnEFW - OFC	0.014	0.006	2.888
lnEFW - lnASS1	0.785	0.033	76.184*
lnEFW - lnASS2	0.967	0.001	19.567*
lnEFW - QIN	0.008	0.008	0

หมายเหตุ : \* ผลการทดสอบพบว่าตัวแปรคู่่นั้นไม่มีความสัมพันธ์กันเชิงเส้นตรง

ผลการวิเคราะห์โมเดลปัจจัยที่มีผลต่อความสำเร็จของกลุ่มฯ โดยใช้โปรแกรม LISREL

L I S R E L 8.30

BY

Karl G. Jöreskog & Dag Sörbom

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The following lines were read from file D:\MUN20.SPL:

PANINI  
Observed Variables: LNPRF LNEFW LNNUP REP WOR ADU FRD OFC ADV LNDIS QIN  
Correlation matrix  
1.000  
.524 1.000  
.612 .179 1.000  
.354 -.008 .350 1.000  
.070 -.200 .076 .214 1.000  
.081 -.101 .089 .201 .401 1.000  
.043 -.196 .005 .129 .385 .119 1.000  
.124 -.075 .044 .176 .325 .307 .361 1.000  
.102 -.150 .070 .158 .549 .306 .543 .363 1.000  
-.084 .050 -.096 .022 -.108 -.052 -.142 -.099 -.084 1.000  
.008 -.089 .185 -.097 -.021 -.040 -.037 .019 .058 -.210 1.000  
Standard Deviations: 1.886 1.285 .716 .457 .648 .851 .748 .907 .804 .821 .460  
Sample Size: 533  
Latent Variable: MOR SAC SUC OFF MAN MAR PRO FIN  
Relationships  
LNPRF LNEFW = SUC  
WOR ADV ADU FRD REP LNDIS = SAC  
LNNUP REP LNDIS = MAR  
SUC = SAC MAR  
Set Covariance of ADV and WOR Free  
Set Covariance of ADU and FRD Free  
Set Covariance of FRD and ADV Free  
Set Covariance of REP and LNDIS Free  
PATH DIAGRAM  
LISREL Output: SE TV PC RS SC EF MR FS SS MI RS ND=8 AD=OFF IT=200  
End of Problem

PANINI

Covariance Matrix to be Analyzed

	LNPRF	LNEFW	LNNUP	REP	WOR	ADU
LNPRF	3.55699600					
LNEFW	1.26991924	1.65122500				
LNNUP	0.82643011	0.16469074	0.51265600			
REP	0.30511331	-0.00469796	0.11452420	0.20884900		
WOR	0.08554896	-0.16653600	0.03526157	0.06337310	0.41990400	
ADU	0.13000387	-0.11044704	0.05422912	0.07817031	0.22113065	0.72420100
FRD	0.06066130	-0.18839128	0.00267784	0.04409684	0.18661104	0.07574921
ADV	0.15466709	-0.15497100	0.04029648	0.05805362	0.28602461	0.20936642
LNDIS	-0.13006610	0.05274925	-0.05643226	0.00825433	-0.05745686	-0.03633089

Covariance Matrix to be Analyzed

	FRD	ADV	LNDIS
FRD	0.55950400		
ADV	0.32655586	0.64641600	

LNDIS-0.08720334-0.05544706 0.67404100

PANINI

## Parameter Specifications

## LAMBDA-Y

	SUC
LNPRF	0
LNEFW	1

## LAMBDA-X

	SAC	MAR
LNNUP	0	2
REP	3	4
WOR	5	0
ADU	6	0
FRD	7	0
ADV	8	0
LNDIS	9	10

## GAMMA

	SAC	MAR
SUC	11	12

## PHI

	SAC	MAR
SAC	0	
MAR	13	0

## PSI

SUC
14

## THETA-EPS

LNPRF	LNEFW
15	16

## THETA-DELTA

	LNNUP	REP	WOR	ADU	FRD	ADV
LNNUP	17					
REP	0	18				
WOR	0	0	19			
ADU	0	0	0	20		
FRD	0	0	0	21	22	
ADV	0	0	23	0	24	25
LNDIS	0	26	0	0	0	0

## THETA-DELTA

LNDIS
27

PANINI

Number of Iterations = 45

LISREL Estimates (Maximum Likelihood)

## LAMBDA-Y

SUC
LNPRF 3.37067240



LNEFW 0.37675555  
 0.14833851)  
 2.53983648

LAMBDA-X

	SAC	MAR
LNNUP	0.54695821 (0.03699040) 14.79	
REP	0.11237404 0.02295346(0.02098241) 4.89573455	0.19570640 9.32716421
WOR	0.45354919 0.03963393) 11.44	--
ADU	0.48116042 0.05135783) 9.36878402	--
FRD	0.41529357 0.04597142) 9.03373480	--
ADV	0.44233846 0.05187731) 8.52662651	--
LNDIS	-0.12333741 0.04303763(0.04064502) -2.87	-0.08450881 -2.08

GAMMA

	SAC	MAR
SUC	0.07684499 0.02503311(0.02950264) 3.06973441	0.41432988 14.04

Covariance Matrix of ETA and KSI

	SUC	SAC	MAR
SUC	1.00000000		
SAC	0.12913539	1.00000000	
MAR	0.42402808	0.12620475	1.00000000

PHI

	SAC	MAR
SAC	1.00000000	
MAR	0.12620475 0.06831264) 1.84745831	1.00000000

PSI

SUC
0.81438909 0.35800375) 2.27480600

Squared Multiple Correlations for Structural Equations

SUC
0.18561091

## THETA-EPS

LNPRF	LNEFW
-7.80443619	1.50928037
4.00673012(0.10504157)	
*****	*****

## Squared Multiple Correlations for Y - Variables

LNPRF	LNEFW
3.19410866	0.08596329

## THETA-DELTA

	LNNUP	REP	WOR	ADU	FRD	ADV
LNNUP	0.21349265 0.03149663) 6.77826873					
REP	--	0.15236901 (0.01029649) *****				
WOR	--	--	0.21419705 (0.03121936) 6.86103338			
ADU	--	--	--	0.49268543 (0.04791690) *****		
FRD	--	--	--	--	-0.12249088 0.38624831 (0.03171389(0.03787786) *****	
ADV	--	--	0.08581213 (0.02996773) 2.86348437	--	0.14240321 0.45108106 (0.02777533(0.04485375) 5.12696645 *****	
LNDIS	--	0.04289801 (0.01443846) 2.97109255	--	--	--	--

## THETA-DELTA

LNDIS
LNDIS 0.64905625 0.04027276) *****

## Squared Multiple Correlations for X - Variables

LNNUP	REP	WOR	ADU	FRD	ADV
0.58355568	0.27043456	0.48989034	0.31968393	0.30868711	0.30253578

## Squared Multiple Correlations for X - Variables

LNDIS
0.03706710

## Goodness of Fit Statistics

Degrees of Freedom = 18  
 Minimum Fit Function Chi-Square = 60.79503651 (P = 0.00000152)  
 Normal Theory Weighted Least Squares Chi-Square = 59.06285085 (P = 0.00000290)  
 Estimated Non-centrality Parameter (NCP) = 41.06285085  
 90 Percent Confidence Interval for NCP = {21.48316926 ; 68.24585726}

Minimum Fit Function Value = 0.11427638  
 Population Discrepancy Function Value (F0) = .77185810D-01  
 90 Percent Confidence Interval for F0 = (.40381897D-01 ; 0.12828169)  
 Root Mean Square Error of Approximation (RMSEA) = .65483590D-01

90 Percent Confidence Interval for RMSEA = (.47364953D-01 ; .84420142D-01)  
 P-Value for Test of Close Fit (RMSEA < 0.05) = .77719462D-01

Expected Cross-Validation Index (ECVI) = 0.21252416  
 90 Percent Confidence Interval for ECVI = (0.17572024 ; 0.26362003)  
 ECVI for Saturated Model = 0.16917293  
 ECVI for Independence Model = 2.22551755

Chi-Square for Independence Model with 36 Degrees of Freedom = 1165.97533875  
 Independence AIC = 1183.97533875  
 Model AIC = 113.06285085  
 Saturated AIC = 90.00000000  
 Independence CAIC = 1231.48203157  
 Model CAIC = 255.58292930  
 Saturated CAIC = 327.53346409

Normed Fit Index (NFI) = 0.94785907  
 Non-Normed Fit Index (NNFI) = 0.92425492  
 Parsimony Normed Fit Index (PNFI) = 0.47392954  
 Comparative Fit Index (CFI) = 0.96212746  
 Incremental Fit Index (IFI) = 0.96272129  
 Relative Fit Index (RFI) = 0.89571814

Critical N (CN) = 305.57197100

Root Mean Square Residual (RMR) = .63885715D-01  
 Standardized RMR = .65236938D-01  
 Goodness of Fit Index (GFI) = 0.97592282  
 Adjusted Goodness of Fit Index (AGFI) = 0.93980704  
 Parsimony Goodness of Fit Index (PGFI) = 0.39036913

PANINI

Fitted Covariance Matrix

	LNPRF	LNEFW	LNNUP	REP	WOR	ADU
LNPRF	3.55699621					
LNEFW	1.26991954	1.65122512				
LNNUP	0.78174536	0.08737927	0.51265594			
REP	0.32862867	0.03673234	0.11480026	0.20884900		
WOR	0.19741776	0.02206629	0.03130792	0.06216940	0.41990392	
ADU	0.20943618	0.02340965	0.03321389	0.06595416	0.21822992	0.72420079
FRD	0.18076612	0.02020506	0.02866718	0.05692558	0.18835607	0.07733195
ADV	0.19253803	0.02152086	0.03053406	0.06063271	0.28643439	0.21283576
LNDIS	-0.17447050	-0.01950137	-0.05473661	0.00825433	-0.06077687	-0.06447686

Fitted Covariance Matrix

	FRD	ADV	LNDIS
FRD	0.55871706		
ADV	0.32610353	0.64674438	
LNDIS	-0.05565051	-0.05927460	0.67404099

Fitted Residuals

	LNPRF	LNEFW	LNNUP	REP	WOR	ADU
LNPRF	-0.00000021					
LNEFW	-0.00000030	-0.00000012				
LNNUP	0.04468475	0.07731147	0.00000006			
REP	-0.02351536	-0.04143030	-0.00027606	0.00000000		
WOR	-0.11186880	-0.18860229	0.00395365	0.00120370	0.00000008	
ADU	-0.07943232	-0.13385668	0.02101523	0.01221615	0.00290073	0.00000021
FRD	-0.12010481	-0.20859634	-0.02598934	-0.01282874	-0.00174503	-0.00158274
ADV	-0.03787094	-0.17649186	0.00976242	-0.00257909	-0.00040978	-0.00346934
LNDIS	0.04440440	0.07225062	-0.00169564	0.00000000	0.00332001	0.02814596

Fitted Residuals

	FRD	ADV	LNDIS
FRD	0.00078694		
ADV	0.00045233	-0.00032838	
LNDIS	-0.03155282	0.00382755	0.00000001

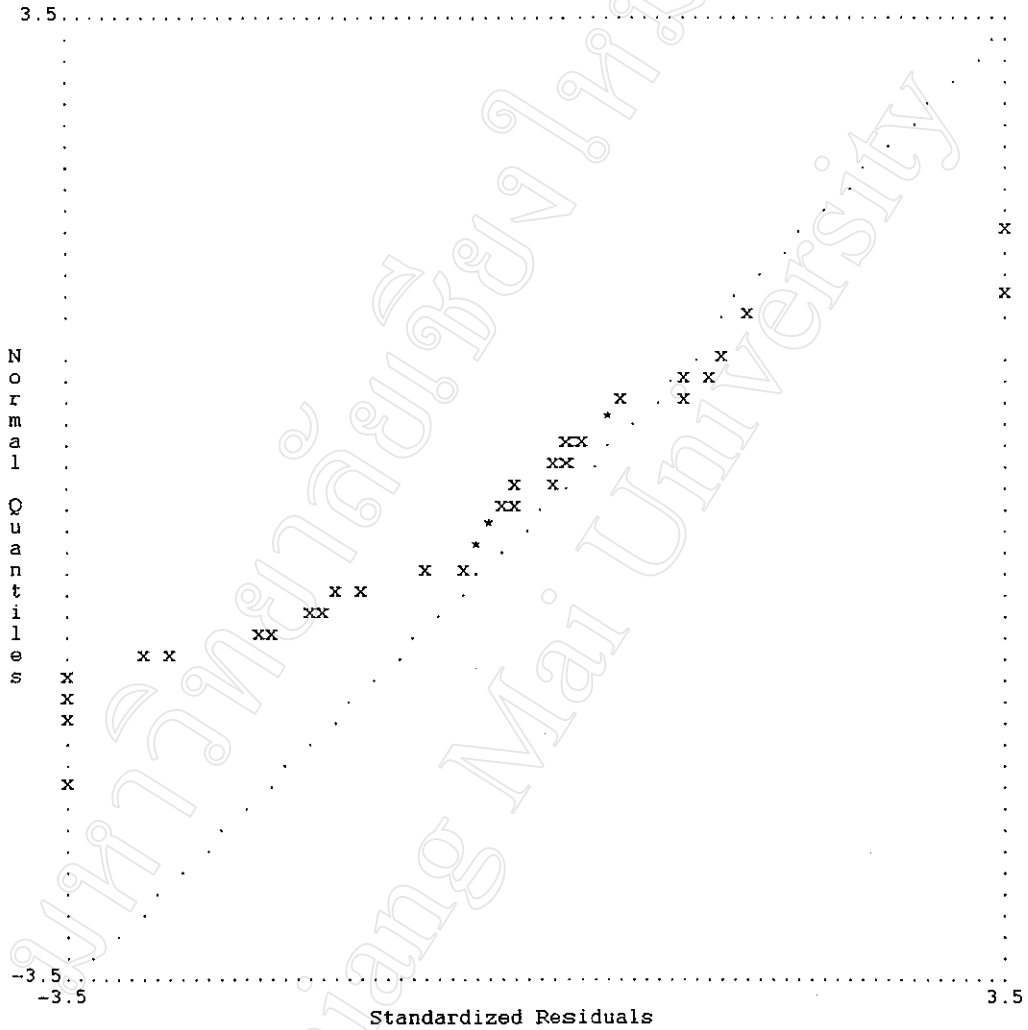
Summary Statistics for Fitted Residuals

Smallest Fitted Residual = -0.20859634  
 Median Fitted Residual = -0.00000021



PANIN1

Qplot of Standardized Residuals



PANIN1

Modification Indices and Expected Change

No Non-Zero Modification Indices for LAMBDA-Y

Modification Indices for LAMBDA-X

	SAC	MAR
LNNUP	--	--
REP	--	--
WOR	--	0.20560992
ADU	--	0.03937814
FRD	--	1.82004520
ADV	--	2.10497014
LNDIS	--	--

Expected Change for LAMBDA-X

	SAC	MAR
LNNUP	--	--
REP	--	--
WOR	--	-0.01384503
ADU	--	0.00904621

FRD - - -0.04928507  
 ADV - - 0.04660802  
 LNDIS - - - -

Standardized Expected Change for LAMBDA-X

	SAC	MAR
LNNUP	- -	- -
REP	- -	- -
WOR	- -	-0.01384503
ADU	- -	0.00904621
FRD	- -	-0.04928507
ADV	- -	0.04660802
LNDIS	- -	- -

Completely Standardized Expected Change for LAMBDA-X

	SAC	MAR
LNNUP	- -	- -
REP	- -	- -
WOR	- -	-0.02136578
ADU	- -	0.01063009
FRD	- -	-0.06593552
ADV	- -	0.05795545
LNDIS	- -	- -

No Non-Zero Modification Indices for BETA

No Non-Zero Modification Indices for GAMMA

No Non-Zero Modification Indices for PHI

No Non-Zero Modification Indices for PSI

Modification Indices for THETA-DELTA-EPS

	LNPRF	LNEFW
LNNUP	17.68017663	17.67996356
REP	0.55135940	1.44312372
WOR	0.44014713	3.69061559
ADU	0.78990824	0.09993316
FRD	0.63420691	7.76159631
ADV	2.31487755	0.50402629
LNDIS	0.00021327	0.87670299

Expected Change for THETA-DELTA-EPS

	LNPRF	LNEFW
LNNUP	-1.96152721	0.21924760
REP	0.07684788	-0.02642422
WOR	-0.02008080	-0.04522774
ADU	-0.04022991	-0.01118318
FRD	0.02862272	-0.07900591
ADV	0.04912193	-0.01923821
LNDIS	-0.00075828	0.03550743

Completely Standardized Expected Change for THETA-DELTA-EPS

	LNPRF	LNEFW
LNNUP	-1.45257860	0.23829707
REP	0.08916080	-0.04499692
WOR	-0.01643101	-0.05431587
ADU	-0.02506559	-0.01022663
FRD	0.02030361	-0.08225466
ADV	0.03238675	-0.01861638
LNDIS	-0.00048971	0.03365681

Modification Indices for THETA-DELTA

	LNNUP	REP	WOR	ADU	FRD	ADV
LNNUP	- -	- -	- -	- -	- -	- -
REP	0.01930416	- -	- -	- -	- -	- -
WOR	0.27151821	0.15755576	- -	- -	- -	- -
ADU	0.94061177	0.63240947	0.44456811	- -	- -	- -
FRD	2.41407343	0.17958667	0.12559139	- -	- -	- -
ADV	0.00046323	0.48064773	- -	0.23326192	- -	- -

LNDIS 0.01930476 - - 0.00341114 G.69106221 2.90079815 0.68088206

Modification Indices for THETA-DELTA

LNDIS

LNDIS - -

Expected Change for THETA-DELTA

	LNNUP	REP	WOR	ADU	FRD	ADV
LNNUP	- -					
REP	-0.00706368	- -				
WOR	0.00709320	0.00435615	- -			
ADU	0.01975472	0.01302031	0.02518297	- -		
FRD	0.02500621	-0.00558750	-0.01757179	- -	- -	
ADV	-0.00031388	-0.00796171	- -	-0.01943630	- -	- -
LNDIS	-0.00305024	- -	-0.00118793	0.02529270	-0.04114994	0.01793877

Expected Change for THETA-DELTA

LNDIS

LNDIS - -

Completely Standardized Expected Change for THETA-DELTA

	LNNUP	REP	WOR	ADU	FRD	ADV
LNNUP	- -					
REP	-0.02158747	- -				
WOR	0.01528813	0.01470997	- -			
ADU	0.03242115	0.03347924	0.04566700	- -		
FRD	0.04672388	-0.01635707	-0.03627815	- -	- -	
ADV	-0.00054512	-0.02166326	- -	-0.02839996	- -	- -
LNDIS	-0.00518894	- -	-0.00223292	0.03620116	-0.06705484	0.02716959

Completely Standardized Expected Change for THETA-DELTA

LNDIS

LNDIS - -

Maximum Modification Index is 17.68 for Element ( 1, 1) of THETA DELTA-EPSILON

Covariance Matrix of Parameter Estimates

	LY 2.1	LX 1.2	LX 2.1	LX 2.2	LX 3.1	LX 4.1
LY 2.1	0.02200431					
LX 1.2	0.00000000	0.00136829				
LX 2.1	0.00000000	0.00008888	0.00052686			
LX 2.2	0.00000000	0.00011479	-0.00008614	0.00044026		
LX 3.1	0.00000000	0.00000604	0.00005233	-0.00000049	0.00157085	
LX 4.1	0.00000000	0.00001974	0.00000571	0.00001993	-0.00061233	0.00263763
LX 5.1	0.00000000	-0.00001885	0.00000147	0.00001862	-0.00056582	0.00038747
LX 6.1	0.00000000	0.00000559	0.00000507	-0.00000024	0.00094097	-0.00059910
LX 7.1	0.00000000	0.00003984	0.00006589	-0.00001663	-0.00005730	-0.00000761
LX 7.2	0.00000000	-0.00004979	-0.00001985	0.00007313	0.00000151	-0.00002187
GA 1.1	0.00030997	0.00021012	0.00019183	-0.00001627	0.00003607	0.00000094
GA 1.2	0.00167131	-0.00025211	0.00007461	0.00004943	0.00000028	0.00002880
PH 2.1	0.00000000	-0.00022455	-0.00037386	-0.00005217	0.00005702	0.00001457
PS 1.1	-0.05188563	0.00035869	0.00004106	0.00003174	0.00000103	-0.00001052
TE 1.1	0.58353628	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
TE 2.2	-0.00729045	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
TD 1.1	0.00000000	-0.00075023	-0.00009622	-0.00001552	-0.00000254	0.00002590
TD 2.2	0.00000000	0.00001738	-0.00002349	-0.00003059	-0.00000063	0.00000642
TD 3.3	0.00000000	-0.00000211	-0.00000401	0.00000165	-0.00008432	0.00074149
TD 4.4	0.00000000	0.00002279	0.00004341	-0.00001782	0.00078663	-0.00143765
TD 5.4	0.00000000	0.00001860	0.00003544	-0.00001455	0.00065707	-0.00077177
TD 5.5	0.00000000	0.00001945	0.00003705	-0.00001521	0.00063680	-0.00038468
TD 6.3	0.00000000	-0.00000653	-0.00001244	0.00000511	-0.00066235	0.00069448
TD 6.5	0.00000000	0.00000678	0.00001291	-0.00000530	0.00013930	0.00004344
TD 6.6	0.00000000	-0.00000544	-0.00001036	0.00000425	-0.00049332	0.00068330
TD 7.2	0.00000000	0.00001016	0.00001440	0.00000154	0.00000076	-0.00000773
TD 7.7	0.00000000	-0.00000566	0.00000538	0.00000132	-0.00000093	0.00000952

Covariance Matrix of Parameter Estimates

LX 5.1	LX 6.1	LX 7.1	LX 7.2	GA 1.1	GA 1.2
--------	--------	--------	--------	--------	--------

LX 5.1 0.00211337  
 LX 6.1 0.00014004 0.00269126  
 LX 7.1-0.00000287-0.00005528 0.00185224  
 LX 7.2-0.00002051 0.00000121-0.00033944 0.00165202  
 GA 1.1-0.00000178 0.00003476-0.00008883 0.00000842 0.00062666  
 GA 1.2 0.00002684 0.00000060 0.00003381-0.00002776-0.00019265 0.00087041  
 PH 2.1 0.00000938 0.00005509 0.00013548 0.00010595-0.00085351 0.00024715  
 PS 1.1-0.00000988 0.00000087-0.00001822-0.00001394-0.00062841-0.00426663  
 TE 1.1 0.00000000 0.00000000 0.00000000 0.00000000 0.00822027 0.04432173  
 TE 2.2 0.00000000 0.00000000 0.00000000 0.00000000-0.00010270-0.00055374  
 TD 1.1 0.00002434-0.00000215 0.00004248 0.00000694-0.00022916 0.00050879  
 TD 2.2 0.00000603-0.00000053-0.00000328-0.00000535-0.00000551 0.00002314  
 TD 3.3 0.00067383-0.00053620 0.00000429-0.00000189-0.00000301 0.00000230  
 TD 4.4-0.00041371 0.00076902-0.00004635 0.00002046 0.00003253-0.00002485  
 TD 5.4-0.00073023 0.00063911-0.00003784 0.00001670 0.00002656-0.00002028  
 TD 5.5-0.00103649 0.00016849-0.00003956 0.00001746 0.00002776-0.00002121  
 TD 6.3 0.00054756-0.00097814 0.00001329-0.00000586-0.00000932 0.00000712  
 TD 6.5-0.00034577-0.00063095-0.00001379 0.00000609 0.00000968-0.00000739  
 TD 6.6 0.00033198-0.00143926 0.00001106-0.00000488-0.00000776 0.00000593  
 TD 7.2-0.00000726 0.00000064-0.00003951-0.00005670 0.00000313-0.00001190  
 TD 7.7 0.00000895-0.00000079 0.00012053 0.00002967-0.00000173 0.00000615

Covariance Matrix of Parameter Estimates

	PH 2.1	PS 1.1	TE 1.1	TE 2.2	TD 1.1	TD 2.2
PH 2.1	0.00466662					
PS 1.1	-0.00012708	0.12816669				
TE 1.1	0.00000000	-1.4325720816	0.05388626			
TE 2.2	0.00000000	0.02179552	-0.24199167	0.01103373		
TD 1.1	0.00031548	-0.00039238	0.00000000	0.00000000	0.00099204	
TD 2.2	0.00001238	-0.00001899	0.00000000	0.00000000	0.00001901	0.00010602
TD 3.3	0.00000370	-0.00000094	0.00000000	0.00000000	0.00000231	0.00000057
TD 4.4	0.00004003	0.00001012	0.00000000	0.00000000	-0.00002493	-0.00000618
TD 5.4	0.00003268	0.00000826	0.00000000	0.00000000	-0.00002035	-0.00000504
TD 5.5	0.00003416	0.00000864	0.00000000	0.00000000	-0.00002127	-0.00000527
TD 6.3	-0.00001147	-0.00000290	0.00000000	0.00000000	0.00000714	0.00000177
TD 6.5	0.00001191	0.00000301	0.00000000	0.00000000	-0.00000742	-0.00000184
TD 6.6	-0.00000955	-0.00000241	0.00000000	0.00000000	0.00000595	0.00000147
TD 7.2	-0.00000848	0.00000983	0.00000000	0.00000000	-0.00001111	0.000002035
TD 7.7	0.00000401	-0.00000503	0.00000000	0.00000000	0.00000620	0.00000471

Covariance Matrix of Parameter Estimates

	TD 3.3	TD 4.4	TD 5.4	TD 5.5	TD 6.3	TD 6.5
TD 3.3	0.00097465					
TD 4.4	-0.00071355	0.00229603				
TD 5.4	-0.00059603	0.00051581	0.00100577			
TD 5.5	-0.00057764	0.00042659	0.00045451	0.00143473		
TD 6.3	0.00066992	-0.00066832	-0.00060723	-0.00042728	0.00089806	
TD 6.5	-0.00012636	-0.00004180	0.00003927	0.00053189	0.00019357	0.00077147
TD 6.6	0.00047517	-0.00065755	-0.00058681	-0.00012825	0.00098361	0.00075645
TD 7.2	-0.00000069	0.00000744	0.00000607	0.00000635	-0.00000213	0.00000221
TD 7.7	0.00000085	-0.00000916	-0.00000748	-0.00000782	0.00000263	-0.00000273

Covariance Matrix of Parameter Estimates

	TD 6.6	TD 7.2	TD 7.7
TD 6.6	0.00201186		
TD 7.2	-0.00000177	0.00020847	
TD 7.7	0.00000219	0.00008291	0.00162190

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Correlation Matrix of Parameter Estimates

	LY 2.1	LX 1.2	LX 2.1	LX 2.2	LX 3.1	LX 4.1
LY 2.1	1.00000000					
LX 1.2	0.00000000	1.00000000				
LX 2.1	0.00000000	0.10467603	1.00000000			
LX 2.2	0.00000000	0.14789407	-0.17885620	1.00000000		
LX 3.1	0.00000000	0.00411766	0.05751920	-0.00058757	1.00000000	
LX 4.1	0.00000000	-0.01038993	0.00484472	0.01849617	-0.30082255	1.00000000
LX 5.1	0.00000000	-0.01108620	0.00139320	0.01930731	-0.31054396	0.16411296
LX 6.1	0.00000000	0.00291322	0.04238259	-0.00022421	0.45764983	-0.22486053
LX 7.1	0.00000000	-0.02502453	0.06669558	-0.01841102	-0.03359285	-0.00344171
LX 7.2	0.00000000	-0.03311677	-0.02127885	0.08574539	0.00093873	-0.01047622
GA 1.1	0.08347516	0.22690988	0.33385611	-0.03097563	0.03635864	0.00073463
GA 1.2	0.38189315	-0.23101910	-0.11017675	0.07985641	0.00023921	0.01900979



PH 2.1 0.00000000-0.08886280-0.23842965-0.03639582 0.02106061 0.00415204  
 PS 1.1-0.97702493 0.02708622 0.00499649 0.00422590 0.00007272-0.00057196  
 TE 1.1 0.98180190 0.00000000 0.00000000 0.00000000 0.00000000 0.00000000  
 TE 2.2-0.46788488 0.00000000 0.00000000 0.00000000 0.00000000 0.00000000  
 TD 1.1 0.00000000-0.64393302-0.13308736-0.02347668-0.00203587 0.01601236  
 TD 2.2 0.00000000-0.04563673-0.09941044-0.14160215-0.00154365 0.01214099  
 TD 3.3 0.00000000-0.00182490-0.00560242 0.00251663-0.71469133 0.46246103  
 TD 4.4 0.00000000 0.01285536 0.03946588-0.01772821 0.41420500-0.58419346  
 TD 5.4 0.00000000 0.01585693 0.04868068-0.02186753 0.52275245-0.47383911  
 TD 5.5 0.00000000 0.01387919 0.04260903-0.01914012 0.42418276-0.19774656  
 TD 6.3 0.00000000-0.00589181-0.01808783 0.00812512-0.55765800 0.45123290  
 TD 6.5 0.00000000 0.00659800 0.02025582-0.00909898 0.12653923 0.03045101  
 TD 6.6 0.00000000-0.00327627-0.01005813 0.00451814-0.27749932 0.29662408  
 TD 7.2 0.00000000 0.01902412 0.04344406 0.00508917 0.00132544-0.01042476  
 TD 7.7 0.00000000-0.00380272 0.00582035 0.00156596-0.00058529 0.00460341

Correlation Matrix of Parameter Estimates

	LX 5.1	LX 6.1	LX 7.1	LX 7.2	GA 1.1	GA 1.2
LX 5.1	1.00000000					
LX 6.1	0.05872047	1.00000000				
LX 7.1	0.00145153	-0.02475953	1.00000000			
LX 7.2	0.01097414	0.00057290	-0.19404788	1.00000000		
GA 1.1	-0.00154451	0.02676440	-0.08245019	0.00828012	1.00000000	
GA 1.2	0.01978990	0.00039000	0.02662748	-0.02315013	-0.26085277	1.00000000
PH 2.1	0.00298776	0.01554512	0.04608084	0.03815735	-0.49910610	0.12263148
PS 1.1	-0.00060050	0.00004708	-0.00118276	-0.00095812	-0.07011978	-0.40395818
TE 1.1	0.00000000	0.00000000	0.00000000	0.00000000	0.08195607	0.37494342
TE 2.2	0.00000000	0.00000000	0.00000000	0.00000000	-0.03905677	-0.17868203
TD 1.1	0.01681161	-0.00131796	0.03133461	0.00542419	-0.29064311	0.54753195
TD 2.2	0.01274700	-0.00099931	-0.00739190	-0.01278517	-0.02135772	0.07617940
TD 3.3	0.46950635	-0.33107613	0.00319078	-0.00149120	-0.00385006	0.00249498
TD 4.4	-0.18781179	0.30936532	-0.02247724	0.01050467	0.02712148	-0.01757569
TD 5.4	-0.50086596	0.38846111	-0.02772541	0.01295739	0.03345402	-0.02167940
TD 5.5	-0.59524200	0.08574436	-0.02426738	0.01134129	0.02928149	-0.01897545
TD 6.3	0.39745868	-0.62917466	0.01030167	-0.00481446	-0.01243020	0.00805521
TD 6.5	-0.27079143	-0.43788587	-0.01153642	0.00539151	0.01392007	-0.00902070
TD 6.6	0.16100052	-0.61853376	0.00572847	-0.00267718	-0.00691208	0.00447927
TD 7.2	-0.01094510	0.00085805	-0.06358649	-0.09661738	0.00864619	-0.02794674
TD 7.7	0.00483319	-0.00037890	0.06954195	0.01812691	-0.00172022	0.00517827

Correlation Matrix of Parameter Estimates

	PH 2.1	PS 1.1	TE 1.1	TE 2.2	TD 1.1	TD 2.2
PH 2.1	1.00000000					
PS 1.1	-0.00519624	1.00000000				
TE 1.1	0.00000000	-0.99870866	1.00000000			
TE 2.2	0.00000000	0.57958682	-0.57497523	1.00000000		
TD 1.1	0.14662289	-0.03479826	0.00000000	0.00000000	1.00000000	
TD 2.2	0.01760415	-0.00515217	0.00000000	0.00000000	0.05863050	1.00000000
TD 3.3	-0.00173595	-0.00008374	0.00000000	0.00000000	0.00234448	0.00177765
TD 4.4	0.01222878	0.00058993	0.00000000	0.00000000	-0.01651556	-0.01252253
TD 5.4	0.01508405	0.00072767	0.00000000	0.00000000	-0.02037174	-0.01544639
TD 5.5	0.01320270	0.00063691	0.00000000	0.00000000	-0.01783089	-0.01351985
TD 6.3	-0.00560464	-0.00027037	0.00000000	0.00000000	0.00756934	0.00573927
TD 6.5	0.00627641	0.00030278	0.00000000	0.00000000	-0.00847659	-0.00642718
TD 6.6	-0.00311658	-0.00015035	0.00000000	0.00000000	0.00420909	0.00319145
TD 7.2	-0.00859697	0.00190144	0.00000000	0.00000000	-0.02444070	0.13689312
TD 7.7	0.00145823	-0.00034855	0.00000000	0.00000000	0.00488544	0.01136152

Correlation Matrix of Parameter Estimates

	TD 3.3	TD 4.4	TD 5.4	TD 5.5	TD 6.3	TD 6.5
TD 3.3	1.00000000					
TD 4.4	-0.47699406	1.00000000				
TD 5.4	-0.60199614	0.33943185	1.00000000			
TD 5.5	-0.48848434	0.23503873	0.37836535	1.00000000		
TD 6.3	0.71605188	-0.46541308	-0.63892183	-0.37641835	1.00000000	
TD 6.5	-0.14572122	-0.03140794	0.04458548	0.50556529	0.23255279	1.00000000
TD 6.6	0.33933464	-0.30594561	-0.41252204	-0.07548693	0.73176079	0.60718499
TD 7.2	-0.00152636	0.01075236	0.01326291	0.01160870	-0.00492798	0.00551864
TD 7.7	0.00067402	-0.00474808	-0.00585670	-0.00512622	0.00217612	-0.00243695

Correlation Matrix of Parameter Estimates

	TD 6.6	TD 7.2	TD 7.7
TD 6.6	1.00000000		
TD 7.2	-0.00274031	1.00000000	

TD 7.7 0.00121008 0.14258950 1.00000000

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Covariances

Y - ETA

	LNPRF	LNEFW
SUC	3.37067240	0.37675555

Y - KSI

	LNPRF	LNEFW
SAC	0.43527309	0.04865247
MAR	1.42925976	0.15975494

X - ETA

	LNNUP	REP	WOR	ADU	FRD	ADV
SUC	0.23192564	0.09749647	0.05856925	0.06213484	0.05362910	0.05712155

X - ETA

	LNDIS
SUC	-0.05176133

X - KSI

	LNNUP	REP	WOR	ADU	FRD	ADV
SAC	0.06902872	0.13707312	0.45354919	0.48116042	0.41529357	0.44233846
MAR	0.54695821	0.20988853	0.05724006	0.06072473	0.05241202	0.05582521

X - KSI

	LNDIS
SAC	-0.13400282
MAR	-0.10007458

PANINI

Factor Scores Regressions

ETA

	LNPRF	LNEFW	LNNUP	REP	WOR	ADU
SUC	1.92311382	-1.11152623	-1.98614921	-1.12718408	-0.21424547	-0.13872806

ETA

	FRD	ADV	LNDIS
SUC	-0.15056722	-0.01341983	0.19514773

KSI

	LNPRF	LNEFW	LNNUP	REP	WOR	ADU
SAC	0.04479602	-0.02589132	-0.06947137	0.19988791	0.60580975	0.39227344
MAR	0.33482329	-0.19352202	0.53523957	0.25937522	-0.05601210	-0.03626891

KSI

	FRD	ADV	LNDIS
SAC	0.42575039	0.03794649	-0.06541213
MAR	-0.03936413	-0.00350847	-0.03919175

PANINI

Standardized Solution

LAMBDA-Y

SUC

LNPRF 3.37067240  
 LNEFW 0.37675555

LAMBDA-X

	SAC	MAR
LNNUP - -		0.54695821
REP 0.11237404		0.19570640
WOR 0.45354919	- -	
ADU 0.48116042	- -	
FRD 0.41529357	- -	
ADV 0.44233846	- -	
LNDIS-0.12333741	-0.08450881	

GAMMA

	SAC	MAR
SUC 0.07684499	0.41432988	

Correlation Matrix of ETA and KSI

	SUC	SAC	MAR
SUC 1.00000000			
SAC 0.12913539	1.00000000		
MAR 0.42402808	0.12620475	1.00000000	

PSI

	SUC
	0.81438909

Regression Matrix ETA on KSI (Standardized)

	SAC	MAR
SUC 0.07684499	0.41432988	

PANINI

Completely Standardized Solution

LAMBDA-Y

	SUC
LNPRF 1.78720694	
LNEFW 0.29319497	

LAMBDA-X

	SAC	MAR
LNNUP - -		0.76390816
REP 0.24589506		0.42824156
WOR 0.69992166	- -	
ADU 0.56540599	- -	
FRD 0.55559617	- -	
ADV 0.55003252	- -	
LNDIS-0.15022827	-0.10293400	

GAMMA

	SAC	MAR
SUC 0.07684499	0.41432988	

Correlation Matrix of ETA and KSI

	SUC	SAC	MAR
SUC 1.00000000			
SAC 0.12913539	1.00000000		
MAR 0.42402808	0.12620475	1.00000000	

PSI

SUC

-----  
0.81438909

THETA-EPS

	LNPRF	LNEFW
-----	-----	-----
-2.19410866	0.91403671	

THETA-DELTA

	LNNUP	REP	WOR	ADU	FRD	ADV
-----	-----	-----	-----	-----	-----	-----
LNNUP 0.41644432						
REP - -	0.72956544					
WOR - -	- -	0.51010966				
ADU - -	- -	- -	0.68031607			
FRD - -	- -	- -	-0.19256542	0.69131289		
ADV - -	- -	0.16466732	- -	0.23689587	0.69746422	
LNDIS - -	0.11433462	- -	- -	- -	- -	- -

THETA-DELTA

	LNDIS
-----	-----
LNDIS 0.96293290	

Regression Matrix ETA on KSI (Standardized)

	SAC	MAR
-----	-----	-----
SUC 0.07684499	0.41432988	

PANIN1

Total and Indirect Effects

Total Effects of KSI on ETA

	SAC	MAR
-----	-----	-----
SUC 0.07684499	0.41432988	
	0.02503311	(0.02950264)
	3.06973441	*****

Total Effects of ETA on Y

	SUC
-----	-----
LNPRF 3.37067240	
LNEFW 0.37675555	
	0.14833851)
	2.53983648

Total Effects of KSI on Y

	SAC	MAR
-----	-----	-----
LNPRF 0.25901929	1.39657030	
	0.08437840	(0.09944373)
	3.06973441	*****
LNEFW 0.02895178	0.15610108	
	0.01538954	(0.06650413)
	1.88126291	2.34723887

PANIN1

Standardized Total and Indirect Effects

Standardized Total Effects of KSI on ETA

	SAC	MAR
-----	-----	-----
SUC 0.07684499	0.41432988	

Standardized Total Effects of ETA on Y

----- SUC  
 LNPRF 3.37067240  
 LNEFW 0.37675555

Completely Standardized Total Effects of ETA on Y

----- SUC  
 LNPRF 1.78720694  
 LNEFW 0.29319497

Standardized Total Effects of KSI on Y

	SAC	MAR
LNPRF	0.25901929	1.39657030
LNEFW	0.02895178	0.15610108

Completely Standardized Total Effects of KSI on Y

	SAC	MAR
LNPRF	0.13733790	0.74049324
LNEFW	0.02253057	0.12147944

The Problem used 17864 Bytes (= 0.0% of Available Workspace)

Time used: 0.660 Seconds